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ABSTRACT

Research was reviewed to determine factors which influence the adjustment of educable mentally retarded (EMR) persons after high school age. Study of family characteristics (home environment, ethnic differences, marriage) was said to indicate such conclusions as that physical conditions or location of the home have no bearing on the retardate's eventual adjustment and that minority group subjects seem to attain higher vocational and social adjustment than comparable Caucasian retardates. The physical characteristics, social adjustment, school performance, employment (employment percentages, vocational adjustment, job stability, obtaining employment, job classifications, income, employment problems, prediction, post-vocational adjustment), and civic and community adjustment. Conclusions were drawn after the review of research on each factor. Included was a summary of the secondary classes for classes of EMR in Iowa. Data were given from the vocational rehabilitation center in Des Moines, Iowa, concerning selected characteristics of the mild, moderate, and severely retarded clients rehabilitated for the year ending June, 1968. (GW)

POST HIGH SCHOOL ADJUSTMENT * of the EDUCABLE MENTALLY RETARDED

STATE DEPARTMENT
OF PUBLIC INSTRUCTION

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POST HIGH SCHOOL ADJUSTMENT * OF THE EDUCABLE MENTALLY RETARDED

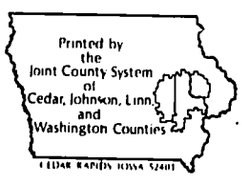

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TABLE OF CONTENTS

Page No.

INTRODUCTION 1

POST-SCHOOL ADJUSTMENT OF THE EDUCABLE MENTALLY RETARDED 3

FAMILY CHARACTERISTICS 5

Home Environment

Ethnic Differences

Marriage

Implications

INTELLIGENCE LEVEL 13

Interpretation of Intelligence

Relationship of Intelligence and Vocational Adjustment

Stability and Reliability of Intelligence Scores

Implications

PHYSICAL CHARACTERISTICS. 19

Personal Appearance

Health and Physical Defects

Motor Coordination

Implications

SOCIAL ADJUSTMENT 23

Self-Concept of the Retardate

Factors That Hinder Social Adjustment

Factors That Distinguish and Facilitate Adequate Social Adjustment

Implications

Page No.

SCHOOL PERFORMANCE 37

School Behavior as Related to Vocational Success

Special Education Versus the Traditional Curriculum

Dropouts Versus Special Education Graduates

Implications

EMPLOYMENT 45

Employment Percentages

Vocational Adjustment

Job Stability

Obtaining Employment

Job Classifications

Income

Employment Problems

Prediction of Vocational Success or Failure

Post-Vocational Adjustment

Implications

CIVIC AND COMMUNITY ADJUSTMENT 65

Community Participation

Implications

SPECIAL EDUCATION IN IOWA 69

A Summary of Secondary Classes for the Educable Retarded in Iowa

College Programs in Iowa

The Growth of Qualified Teachers

Philosophies of Secondary Curriculum Instructors

Paul Retish, Ed.D.

Paul Vance, Ed.D.

Lee Courtnage, Ed.D.

Page No.

VOCATIONAL REHABILITATION 83

Client Characteristics

Mentally Retarded Clients of the Division of Rehabilitation Education and Services - 1969

Mild Mental Retardation

Moderate Mental Retardation

Severe Mental Retardation

BIBLIOGRAPHY 99

INTRODUCTION

In the last ten years, tremendous strides have been made in providing facilities, materials, and personnel for educating the mentally retarded student. It would be easy at this point to sit back, pat ourselves on the back, and feel that our task is finished. However, we must stop and examine the mentally retarded that have been exposed to our educational facilities and ask several questions. How are they adjusting in society? Are they employed? Are they socially competent? Are they a community asset or liability? In other words, how do the mentally retarded function in adult life and what factors appear to contribute to their success or failure?

In this review of research, the intent is not to build rigid categories or determinants for the success or failure of retarded individuals. Of interest are factors in his home, schooling, and employment that might add to or detract from his eventual success. Effects that his intelligence, physical characteristics, and personality seem to have will also be reviewed.

Because research is contradictory, no air-tight conclusions are provided in this paper. The goal is to establish a perspective into what research tells us are some important factors in the retardate's occupational and social adjustments.

Linda Chrisinger Vande Garde

Editor of Publication

POST-SCHOOL ADJUSTMENT OF THE EDUCABLE MENTALLY RETARDED

FAMILY CHARACTERISTICS

Home Environment

Physical Conditions

An examination of home and family environment is reviewed in an effort to determine if there is a relationship between physical and emotional home conditions and the ultimate success or failure of a retarded pupil. There appear to be conflicting results as to whether the home is a positive or negative factor influencing the retarded. Peterson & Smith (1960) compared the post-school adjustment of retarded adults with that of adults of normal intelligence but of low-economic status and found 93 percent of the retarded living in homes that were substandard according to the Warner Scale. Ten times more homeowners were found among the comparison group than among the retarded.

Peck & Stephens (1968) examined the success of 125 young adult retardates ranging from 18 through 26 years of age with intelligence quotients from 50 to 75. They found "sixty-five percent of the subjects resided with relatives; 24 percent lived in halfway houses or institutions, and 11 percent maintained an apartment or house." (p. 51). Of the twenty-five subjects in the control group (males who attended public schools in Texas communities which offered no special educational or vocational training), five were either renting or buying homes; whereas only ten out of one hundred subjects in the trained group (males exposed to special education facilities) were renting or buying property.

There is disagreement when one examines the findings on the adjustment of the urban vs. the rural retardate. Kolstoe & Shafter (1961) found that the retardate had a significantly better chance of later

success if he was from a rural area. They agree with the others that home conditions had no relation to eventual success or failure. Laymen (1940-41) examined 510 Iowa children in cities and towns and concluded that the urban children were better adjusted socially and were obtaining higher mental age levels. It is realized that the research conducted in 1940-41 on social adjustments may not be applicable today. Engle (1952) concluded that a child had a better chance of success if he came from a home where he had the same mental capacity as his parents, that is, a home where he was not a misfit. She went on to say, "Good home conditions may aid in a satisfactory adjustment, or they may set such high standards as will preclude satisfaction and self-esteem for the retarded youth."

Thus far it appears that the physical conditions or location of the home have no real bearing on the eventual adjustment of the retardate. What research has found to be significant, however, is the degree of family support in the home.

Emotional Attitudes

Neff, as reported by Kolstoe & Shafter (1961) classified homes in terms of degree of support and found a large number of workers with high success among families providing good and moderate support. Kolstoe & Shafter suggests that it is quite possible that support is independent of socio-economic status, being related instead to the understanding or empathy of the family for the retardate. Windle, Steward & Brown (1961) supported this viewpoint when they reported that the reason for vocational failure in 35 percent of their subjects was due to lack of environmental support as exhibited by parental disinterest, interference, and rejection. It is interesting to note in the Wolfson (1956) follow-up

study that sizeable numbers of boys and girls reared in orphanages or foster homes made a continuous vocational adjustment following discharge from the institution. This could possibly indicate the positive affect of a stable or reasonable predictable environment on the mentally retarded.

Cowan & Goldman (1959) related home life and vocational adjustment by interviewing forty mothers of subjects that either had or had not received some type of vocational training. They found the mothers of subjects that had not received training to have a negative attitude about their children's abilities. They did not encourage their children to work and tended to be over-protective. Mothers of the trained group seemed to have the same fears about their children's abilities, but they were more concerned about the positive traits and ways in which the children could be rehabilitated. The parents seemed to be able to present an accepting or supportive environment while realistically accepting the children's limitations.

Barber (1963) conducted a study of attitudes of mothers of mentally retarded children as influenced by socio-economic status. The lower class mothers were found to be more defensive, aggressive, domineering, authoritarian, and rejecting of their children than were the upper class mothers. Barber theorized that "having a mentally retarded child tends to intensify some of the corresponding attitudes already held by parents of normal children of similar socio-economic status." If this is true, it would seem that the parents of low socio-economic status have a negative overall approach to life and this is intensified when they are forced to rear a retarded son or daughter.

A Worchell's Rating Scale for Child Concept and the Fels Parent

Behavior Rating Scale were used by Peck & Stephens (1968) to determine the amount of acceptance or rejection held by the parent for the child. They found the subjects in the goal achieving group living with or near parents or parent figures providing long term positive guidance. By contrast, subjects in the failure group were viewed most negatively by their parent or parent figures.

Kolstoe & Shafter (1961) further defined a home with good family support as one in which the child is able to exercise "...a considerable degree of freedom to make decisions concerning his activities and conduct." They further point out that, "This may occur in a family situation that is characterized by parental neglect as easily as in a warm, supporting family setting where it is an outcome of deliberate democratic child rearing practices--if true, socio-economic measures would be useless." (p. 289). While positive family support appears to be related to the later success of the retardate, researchers are hesitant to say that the relationship is direct. As Wolfson (1956) asks, "Why did so many with adverse home environments adjust to society and become stable and responsible people?" (p. 238).

Ethnic Differences

Keeler (1964) and Howe (1967) noted slightly higher vocational adjustment of the minority group subjects than the Caucasian retardates. Howe reported that all subjects from minority groups were employed and, as a group, were earning slightly more than white counterparts. Keeler's study, like Howe's, was made in Claifornia. She attempted to determine the social and vocational adjustment of Caucasian, Negro, Oriental, and Mexican-American graduates from special education. She found Mexican-American males and females had the highest proportion of employment

among the four ethnic groups. More important, "...unrealistic vocational preferences were noted among subjects and parents of the unemployed Caucasian group." (p. 936).

Nine out of sixteen subjects described by Peck & Stephens (1968) as being most satisfied and content proved to be Latin Americans. "Although earnings were below average for the total group--and the group had lower scores on social maturity, a factor which reflected cultural influences on divergent thinking and in the ability to apply reasoning in practical situations, the group was above average. Positive ratings on happiness, emotional stability, and attitude toward school served to strengthen the impression of satisfaction and contentment given by these work-oriented subjects who came from stable homes." (pp. 45 and 46). An atmosphere of parental acceptance would appear to be a key factor in the fine adjustment of the educable retarded from a minority race.

Marriage

Incidence

The incidence of marriage is generally less among mentally retarded than the normal population. Peterson & Smith (1960) reported 50 percent of their retarded subjects were single while one out of five of the comparison group were unmarried. Howe (1967) found that two to four years after school graduation about 40 percent of his subjects had married and, only one had wed another person known to be retarded. Keeler (1964) reported 18.3 percent of her subjects married two years after completion of school. Baller, Charles, & Miller (1967) reported in their longitudinal study that their low group (mean I.Q. 61) had a lower rate for obtaining and keeping spouses than the middle and high groups. This study examined retardates approximately 53 years old.

R. J. Kennedy (1960) tends to disagree with the above in her longitudinal study. Two groups were matched with reference to age, sex, nationality, background, religion, and father's occupation, but their intelligence differed. In 1948, the main objective of the study was to try to measure the personal, social, and economic adjustment of these two groups of adults. In 1960, their adjustment was compared with the 1948 findings. Kennedy found that the subjects showed no striking divergencies from the normal control group. That is, "They marry at about the same rate, and the same age, and have the same average number of children."

Married vs. Unmarried

Difference between unmarried and married adult male retardates were examined by Peck, Stephens, & Fooshee (1964). Performance under pressure was the only variable pertaining to job performance in which the married group obtained a higher mean. With the exception of increased income of the married group, little or no difference existed in the vocational success of the two groups. "The married group had higher mean scores on independence and self-direction while the unmarried appear to exercise more acceptable control over purchasing and leisure behavior." (p. 826).

Retardates as Parents

Peck & Stephens (1968) agree with the findings of Hathaway (1947), Halperin (1946), and Johnson (1950) that major responsibility for raising offspring of the retarded will be assumed by someone else. Although cases were too few for statistical analysis, they found only one out of five retardate fathers to be maintaining a home for his family. Of the remaining four, two were living with relatives and were dependent on them for support, and two were either separated or divorced. The authors felt this research substantiated that of Wolfson (1956) who states:

"Personal, socio-civic and vocational success were highly interrelated, and retardates who met with success in marriage performed more successfully in other areas than did subjects unsuccessful in marriage."

It is interesting to note Kennedy's (1960) findings when she compared the I.Q.'s of the children of subjects with the children of controls. The children of subjects ranged from 65 to 125; those of controls from 65 to 138, with more than half of the children of both groups having normal intelligence. However, Kennedy found that academic retardation occurred more often among the children of subjects than of controls.

Divorce

Divorce appears to be more prevalent among retarded adults but little research has been done in this area. Peterson & Smith (1960) found that the retarded divorced four times more often than those in the comparison group, yet they had been married longer when the divorces occurred. Peck & Stephens (1968) found the divorce rate for six of 125 subjects (5 percent) was higher than the rate found in Wunsch's (1950) Rhode Island report where the incidence of divorce was 0.4 percent and the incidence of separation was 0.5 percent. Kennedy's (1960) longitudinal study reported a slightly higher incidence of remarriage among her subjects but this was so slight as to be statistically insignificant.

Implications

1. Type of residence tends to be made for rather than by the retardate.
2. Physical conditions or location of the home have no real bearing on the eventual adjustment of the retardate.
3. Parental attitudes of acceptance or rejection appear to be related to the social and emotional development of the retarded child.
4. Minority group subjects seem to attain higher vocational and social adjustment than comparable Caucasian retardates.

5. Incidence of marriage among the retarded is less when they are compared with the normal population.

6. Limited research indicates the responsibility of rearing offspring of the retarded is usually assumed by someone else.

INTELLIGENCE LEVEL

Interpretation of Intelligence

It is generally conceded that an I.Q. score does not differentiate the successful from the unsuccessful when competitive employment is used as a criterion. As stated by Goldstein and Heber, (Appell, 1963), "The I.Q. has been too frequently regarded as a highly efficient predictor of an individual's level of vocational and social adjustment and of his ability to profit from an education and rehabilitation program.....The problem is not so much the test as the interpretation which has been given to it." This line of thinking was also discussed by Margaret Mead (1959) in "Research, Cult or Cure?" in which she criticized the fact that Binet learned that intelligence was diversified and different people had different kinds of intelligence. Once this difference was learned, a single standardized test was formed and the results were no longer sensitive and exploratory in terms of each individual. She points out that different societies emphasize different facets of learning. For example, the Chinese stress memorization, with understanding to come later, while we take the problem-solving approach. If rote memory were of primary importance and used as a means of measuring I.Q. in our society, those presently classified as retarded might not be considered retarded on the revised test.

Relationship of Intelligence and Vocational Adjustment

The various ways of interpreting the concept of intelligence would seem to be the reason why research disagrees about the relationship of I.Q. and vocational and social adjustment. Appell (1963) is one of the few that found a significant difference in test performance when he compared an employed vs. a terminal group in a sheltered workshop situation. Using the Wechsler Intelligence Scale for Adults he found no difference

in I.Q. scores as far as full scale scores and verbal test scores but found the nonverbal test scores significantly in favor of the employed group.

Armfield (1964) studied the interrelationships of creativity, emotional handicap, and intelligence among the low-achieving pupils and educable mentally retarded pupils. He concluded:

1. Intelligence does not indicate a level of nonverbal creativity in the educable mentally retarded or low achiever population.
2. Emotional handicap classification does not indicate a level of nonverbal creativity in the educable mentally retarded or low achiever population.
3. The educable mentally retarded possess less nonverbal creativity than do the low achievers.
4. The educable mentally retarded vary more and to a greater degree on nonverbal creativity scores than do the low achievers.

Peck & Stephens (1968) found I.Q. contributed to the prediction of social, vocational, and emotional success of the retardate. They were able to separate convergent and divergent thinking and conclude each predicted different facets of success. In this study, the 100 experimental subjects were grouped in terms of similar criterion--success. The erratic group was highly irregular in their performance but did not experience vocational failure. They exhibited more divergent thinking, similar to creativity in intellectuals, through impulsive actions. The contented group was also found to be above average in divergent thinking and reasoning in practical situations.

The failure group performed in patterns of extremes. "They scored highest of all groups in measures of convergent thinking (which included I.Q.) and on measures of practical originality. They reported the fewest

illnesses, and only one other group reported greater happiness." (p. 46). Regardless of these assets, they were lowest in divergent thinking, social responsiveness, and mental health. As concluded by Peck & Stephens (1968), "These were defeated subjects, defeated not by intellectual performance but rather by serious emotional and social problems." (P. 46).

The relationship of environmental factors to intellectual functioning was investigated by McCandless (1964). He emphasizes the importance of environment, or learning experiences, throughout the development of intelligence. He cites research which describes people from depressed environments with below average intelligence. Yet, children adopted from these areas tend to have above average I.Q. scores. McCandless feels this is due to the greater attention given them and cultural advantages in their new homes.

Viewing I.Q. in terms of vocational success, Kidd, Cross, and Higginbotham (1957) found those with an I.Q. of 65 or higher were, for the most part, able to move directly into the competitive world of work at age 17 or 18. Those below 65 frequently needed additional school and vocational training for two or three years. In the same vein, Kolstoe & Shafter (1961) state that any I.Q. from 40 up to the 80's and 90's is sufficiently high not to interfere with employment of the individual provided job selection is carefully done and the employer is understanding. The success experienced by the majority of mild and moderate retardates rehabilitated in Iowa is in agreement with this conclusion. The data is cited in section MENTALLY RETARDED CLIENTS OF THE DIVISION OF REHABILITATION EDUCATION AND SERVICES -- 1968.

Madison (1964) also reported a relationship between vocational success

and intelligence level. Out of twenty-nine subjects, he classified four as middle-grade retarded while the remaining twenty-five were categorized high-grade or borderline retarded. He reported the four middle-grade retarded failed in work placement assignments while seventeen of the twenty-five borderline retardates succeeded.

Bobroff (1956) found a weak relationship between I.Q., achievement, and learning capacity in adult males. He concluded, as do the majority of researchers, that other factors such as pride, punctuality and honesty play an important part in the vocational success of these subjects. Peck & Stephens (1968) stress the other factors when they point out that vocational failure is seldom due to low intelligence, rather, social and emotional characteristics appear to be of paramount importance.

There are several reasons why research fails to show any direct relationship between intelligence scores and vocational success. Kolstoe & Shafter (1961) suggest that I.Q. may be crucial in some jobs but not in others, and that the vast majority of jobs held by the retarded may be of such minimal intellectual demands that differences do not show up. Another aspect to consider is the limited I.Q. range being examined. While few differences are seen within this group, significant differences are seen when they are compared with the normal population as illustrated by Peterson & Smith (1960). They compared retarded adults with an average I.Q. of 65 with normal adults with an average I.Q. of 105. Both groups came from the same socio-economic background. More subjects in the comparison group found employment immediately upon leaving school than the retarded subjects. The retarded were chiefly employed in unskilled or semiskilled jobs while the comparison group were in semiskilled or skilled occupations. The retarded changed jobs twice as often.

Retarded workers left their jobs mainly because of layoffs, because the work was too difficult, or because they disliked the job. The comparison group left jobs due to increasing pay which accompanied a new position. The difference in intellectual ability could well account for the differences between these two groups.

Stability and Reliability of Intelligence Scores

The longitudinal study by Baller,,et al.(1967) is the best research available concerning I.Q. stability and reliability. They had followed the retarded subjects identified in 1936 by Baller. At that time, they were eleven years of age or older, with an average I.Q. of 60. In 1950, Baller, et al., retested 60 percent of this group with the Wechsler-Bellevue Test and found a sharp rise in ability and performance. An I.Q. average of 80 was recorded among these subjects and the same results held in the 1966 retesting. This would indicate that either our present testing devices are faulty or that the measurement of the performance of the retarded at any one time does not produce a stable and reliable score.

Implications

1. Mild and moderate retardates, for the most part, are able to leave the school situation and function in competitive employment.
2. Research indicates intelligence cannot be directly related to vocational success or failure.
3. Retardates possess convergent and divergent thinking just as normal students, and both measures are related to their success.
4. Stability and reliability of intelligence scores are poor over an extended period of time, possibly indicating shortcomings in the tests and testing procedures.
5. Intelligence is but one of many factors working to facilitate or inhibit a retardate's adjustment.

PHYSICAL CHARACTERISTICS

Personal Appearance

The degree of attractiveness of a retardate is generally agreed to be insignificant in terms of his vocational success. However, good grooming, as defined by Appell, Williams & Fishell (1965) was significantly related to employed vs. unemployed retarded adults. Baller, et al., (1967) also found in their longitudinal study that their low group (I.Q. below 70) when compared to two higher groups, suffered in terms of their social appearance. When Baller, et al., compared the least and most successful retarded in the low group, they found that the most successful females had learned principles of good grooming early in life and had married well or worked steadily. As was pointed out by Kolstoe & Shafter (1961) no consistent physical appearance criteria have been used in studies of adult retardates.

Health and Physical Defects

Kugel and Mohr (1963) found a significant relationship between height, weight, and intellectual level in the 879 children they examined. They concluded that as the degree of mental deficiency increases, physical retardation in physical growth also increases. Stein (1965) administered a youth fitness test to twenty-four mentally retarded boys from ages 13-16 with I.Q.'s from 59-75. Their scores were compared with the national norms and Stein concluded that the differences between the two groups appeared to be influenced more by experience and opportunity than inherent or fundamental differences.

The mere presence of a physical defect did not appear to affect the employability of a retardate according to Kolstoe & Shafter (1961). However, he continues that poor health and general problems of

incoordination did affect employability chances. Howe's study (1967) agreed with the conclusions of Kidd, et al., (1957). That is, the least employable retarded were found to be those individuals that had a physical handicap and were at the lower end of the educable I.Q. range. It is in this vein that Howe points out that we tend to place students in off-campus work if they are likely to be successful, while the multiple handicapped and lower potential retardates are the ones that most need placement and supervision to improve their job-holding potential.

Peck & Stephens, (1968) concluded from their study that "...physical size and stamina plus freedom from physical handicaps may be prime determinants of success." (p. 48). The untrained, or control group, proved to be superior in several areas when compared with the trained, or experimental group. The authors surmised the differences were basically due to physical characteristics. Seventeen percent of the experimental group possessed severe physical handicaps versus 8 percent of the control group. "The suggestion that physical involvements impair performance was substantiated by the fact that the etiology of 66 percent of the trained group was exogenous in nature versus 36 percent of the untrained group." (p. 34). In the same study, "Success of Young Adult Male Retardates," by Peck & Stephens (1968), biographical information was compared with parental attitudes; "The parents' reports of their sons as emotionally stable were found to be related to (a) lack of accompanying physical handicaps, ..." (p. 27). The authors point out that the physical status of the retardate proves to be one of several crucial factors working for or against the individual in relation to his adequate social and emotional development.

Motor Coordination

A critical review by Stein (1963) in which thirteen different aspects of physical fitness and motor function are examined presents the following conclusions:

1. The importance of motor function is stressed because it appears to be a prerequisite for any kind of muscular or motor activity.

2. When compared with normals, mentally retarded persons perform at considerably lower levels on motor ability battery tests.

3. Relationships between motor proficiency and I.Q. were found to correlate higher in the retarded than normals.

4. Comparing performance in complex vs. simple skills, factors limiting motor performance appear to be the complexity of the movements and the associated intellectual action necessary to carry out the movement, rather than the lack of motor ability per se.

5. The Oseretsky Test of Motor Development found a positive relationship between mental age and motor proficience. However, it is noted that no attempt has been made to see whether the qualities measured are amenable to appreciable change with practice, or how instruction in physical education affects the results.

6. Stein concluded that the manipulative dexterity studies appear to be quite biased. Therefore, no conclusions were made.

Rothman (1964) agrees basically with conclusion number 6 but further examined the effect of practice upon the motor skills of the retarded. He found that after practice, the retarded improved significantly in motor coordination and manual dexterity. Therefore, he concludes that the mentally retarded appear to need more than a single-trial opportunity, as is found in most standardized tests, in order that their performance on motor skills be adequately evaluated. This indicates that the more practice afforded the retarded, the greater the improvement on the majority

of the motor skills.

Elkin (1968) supports the general ability hypothesis that psychomotor and intellectual skills are closely related in retardates. He found the Bennett-Hand-Tool Dexterity Test to be the only measure in which a significant difference between male and females correlated with performance. From the sheltered workshop sample of retardates, Elkin concluded that the better workers had higher intelligence, more adequate psychomotor skills, and demonstrated superior performance on work samples.

A factor analytic study by Taylor (1964) used eleven factors and revealed that only general dexterity appeared to be related to work competence. Kolstoe & Shafter's (1961) comparison of employed versus unemployed retarded clients discovered differences in terms of coordination. During the evaluation tasks the employed were significantly superior in: assembly, sorting, wrapping, use of basic hand tools, janitorial, and laundry jobs. This would seem to agree with the findings by Elkin that general dexterity is related to a person's work performance.

Implications

1. Degree of attractiveness is generally considered insignificant in terms of vocational success, however, principles of good grooming tend to be part of the composite of the successful retardate.

2. While a physical handicap does not automatically make a retardate unemployable, it is another existing factor that makes him less desirable for the working force.

3. Physical handicaps affect parental attitudes toward the retardate and in turn affect the social and emotional development of the educable mentally retarded.

4. Motor coordination and intelligence are closely related in the retarded and appear to play a significant part in terms of vocational success.

SOCIAL ADJUSTMENT

Self-Concept of the Retardate

Social adjustment of the retarded adult is an extremely important area in which much research has been conducted. Before examining personality factors that seem to hinder or facilitate their social adeptness, a brief look at the studies concerned with the retardate's self-image would seem appropriate. There is some controversy as to whether the retardate generally has a negative or positive self-concept. Mayer (1966) did not find mentally retarded children to have a general negative concept of self, and, he found no significant difference in self-concept of boys or girls. However, Snyder (1966) reported that higher achievers, in his retarded population, scored higher on a standard personality and self-concept scale than did the lower achievers. He concluded that the high positive relationship between personality integration and achievement emphasizes the importance of personality variables in determining the extend to which the mentally retarded will achieve their intellectual potentials.

Curtis (1964) disagrees with the above somewhat in his study in which he divided high school students into groups of mentally retarded, normal, those in the top ten percentile, and those of the same chronological age as the mental age of the mentally retarded subjects. "The results indicated that the self-concept is related to the intellectual continuum. All devices utilized indicated that the greater the intelligence of the group of subjects, the more positive was the self-concept." It is important that the above is concluded on a group and not on an individual basis.

Peck & Stephens (1968) disagree with the findings reported by Curtis. They used the Peck Sentence Completion Device and the Draw-A-Man Test

(Peck, et. al., 1964) to determine the self-concept of the male adult retardate. They agreed with earlier research that the educable retarded more accurately discloses his feelings in projective techniques than through direct questioning. In their failure group, "No group scored lower on work habits and on financial success than this group; no group was more critical of fellow employees, ...no group was more dependent on social agencies, and no group's performance was viewed more negatively by their parents or parent figures." (p. 46). Despite scoring the highest on IQ tests, this group was viewed poorly by others and by themselves--as shown by the projective devises.

McAfee and Cleland (1965) conducted a study to determine whether the discrepancy between self-concept and ideal-self in the educable retarded male is a valid and reliable indicator of their psychological adjustment. They concluded that the mentally retarded's discrepancy scores between his ideal-self and self-concept did not affect his adjustment. Moreover, the educable retarded uses his normal peers as ideal-self models which may be the reason for his unrealistic self-expectations.

Another important question to consider, does a mentally retarded view himself realistically in terms of his abilities and limitations? Ringness (1961) found that mentally retarded children, compared with children of the same ability, had little knowledge of what was considered success or failure in given situations. The retarded were found to be even further from reality when the total school population was considered. Curry (1969) agrees with this finding in his research at the high school level. He found that the mentally retarded subjects, themselves, had little predictive power in regard to the question of whether they would succeed or fail in the work-study program. Quite interesting also was his finding

that teachers, employers, and vocational counselors were also unable to significantly predict those who would fail or succeed in a job situation.

Factors That Hinder Social Adjustment

A longitudinal study by Kennedy (1962) examining the social adjustment of mentally deficient adults in 1948 and 1960 tells us, "The overwhelming majority of both subjects and controls have made acceptable and remarkably similar adjustment in all three areas: personal, social and economic. The main differences are of degree rather than kind."

There are several ways in which the retarded exhibit poor adjustment. Kennedy points out what had also been found in research by Peterson (1959) and by Emanuelsson (1967). That is, the mentally retarded adult tends to have many more contacts with the law and a higher percentage of serious offenses. Peterson & Smith (1960) noted that 62 percent of their retarded population sample, as compared with 31 percent of their control group of the same socio-economic level had been involved in law violations of a serious nature. Speeding and disobeying signs were the most prevalent offenses.

Peck & Stephens (1968) obtained information on the 125 male subjects in their study and found the untrained (subjects not exposed to special education) group had the largest percentage of violations. The following date was secured on all subjects:

56 percent - no law violations
10 percent - very minor violations
12 percent - minor violations
17 percent - serious violations
5 percent - very serious violations

Significant anti-social behavior in the form of being quarrelsome, uncooperative, insolent, and moody proved to be factors working against job adjustment in studies conducted by Shafter (1957) and Craft (1958).

In each study, they were able to rate the retardate in these areas of behavior and significantly predict job success or failure.

Wolfson (1956) found a definite correlation between community adjustment and the circumstances in which the retardate left the rehabilitation center. For example, of the thirty-three adults that experienced continuously good adjustment, thirty were placed by the center and three refused to continue with the program. On the other hand, of the twenty-four that experienced poor adjustment, ten left the program, six were removed by parents, and eight were placed by the center. This possibly demonstrates the drastic difference of the retardates' attitudes as well as the effect the amount of positive or negative family support makes in determining adjustment.

This last factor, family support, was also found by Windle (1961), Baller, et al., (1967), and Peck & Stephens (1968) to be a significant factor aiding or prohibiting a retardate's social adjustment. In his longitudinal study of three matched groups categorized according to I. Q., Baller, et al., found the low group showed a history of low incidence of rewarding experiences such as having a mother at home. Baller, et al., states that the most successful in their low group acquired a skill early and worked at it continuously; whereas the least successful had learned habits of dependence and attachment to their mother and home. Desirable experiences ranged downward in the three groups in stair-step fashion with the low group on the bottom. This could easily account for inferior adjustment.

In a profile analysis, Peck & Stephens (1968) report interesting results concerning their erratic group and failure group. In the erratic group failure qualities were reported by both parents and employers, but

this inconsistent group did not experience vocational failure. In short, "Efforts of the erratic group appeared concentrated on vocational success while they ignored their lack of personal and socio-civic success." (p. 45). The failure group proved to be much like the erratic group with the additional burden of complete vocational failure. As cited earlier, their performance profile was one of extremes. While scoring highest in intelligence and happiness, they were among the poorest in terms of physical health, family stability, and social maturity.

Guilt, over-protection, and resentment characterized the feelings of the majority of mothers of handicapped adults in a study by Mowatt (1965). Many were found to have negative attitudes about the sexual role of their children as well as a fear for their social adjustment. In turn, "... physical needs, desire for independence, and hostility toward the over-protection of their mothers were common themes among the young adult group."

Bertrand (1966) continues by pointing out that the mentally retarded are often isolated physically, geographically, or emotionally by members of their own families. The retardate's outlook on life is affected by how others react to him. As a result, failure, isolation, and rejection are his common experiences. Heber (1964) suggests that the performance of retardates may be generally depressed as a result of generalized expectations of failure; and that the retarded tend to respond to the threat of failure in a self-defeating manner.

In a 1965 study by Roswell, educable retarded youths who had attended an industrial training unit, were divided into deprived and non-deprived groups on the basis of a normal home life and were compared in terms of education and delinquency. There were significantly more proving

(proving toughness of manhood) and comforting (stealing from parent or impulsive stealing) among the deprived group. Sex offenses comprised 45 percent of the nondeprived group but only six percent of the deprived group. Interestingly, there was no relationship between delinquency and subsequent success or failure after leaving the training unit. Engel (1952) also found this to be true in his follow-up of employment records from the 1930's to 1948.

Social ineptness was frequently seen in older retardates in the Peck & Stephens, (1968) study. These were "...older retardates whose job represented the sole avenue to accomplishments or contacts outside family environs." (p. 20). In other words, they experienced vocational success but were unable to initiate or maintain a friendship. The relationship of social and vocational success would be highly questionable as indicated by Kolstoe & Shafter (1960).

Three studies conducted by Hutt and Gibby (1965) picture the adult retardate as rigid and persistent in his behavioral reactions as his attempt to maintain control in social situations. They believe that maladaptive behavioral reactions, often shown in the forms of rebellion and aggression, are the result of distorted or incomplete personality functions. Conflict and its major consequence--anxiety--appears to be one of the most universal phenomena present in the mentally retarded. Snyder (1966) found that low anxiety was statistically significant when related to good adjustment. Peck & Stephens (1968) used the Castaneda-McCandless Anxiety Scale and found no difference in anxiety between educable retardates trained in special classes and educable retardates in regular classrooms.

In Snyder's (1966) study on personality adjustment, self-attitudes,

and anxiety differences, he found no significant difference in the distribution of personality scores of retardates when compared with the distribution scores of normal peers. However, a trend suggesting better general adjustment among females was found and a significant difference was shown between males and females on the anxiety scale. Better adjustment among female retardates could well be due to the fact that a female's role as a homemaker would be easier to assume than a position in the world of competitive employment which the male retardate must face.

Studies by Heber (1964) and Tizzard & O'Conner (1950) discounted some common beliefs about the educable mentally retarded. Heber reports that three out of four studies of frustration did not support the notion that the retarded as a group are less able to tolerate frustration than normals, or that they respond to frustration in a different manner. Tizzard & O'Conner continue by discounting other common beliefs:

1. There is no reason to suppose that the defective is less persistent or more suggestible than other members of the community of comparable socio-economic status.

2. Performance or level of aspiration doesn't distinguish them from normal peers.

3. They are no more susceptible to monotony than a normal worker and may even be less so.

Factors that Distinguish and Facilitate Adequate Social Adjustment

One becomes increasingly aware of the fact that successful social and community adjustment is not a function of a single variable but is determined by a complex of factors. Kolstoe & Shafter (1961) and Warren (1961) in separate studies compared characteristics of employed vs. unemployed mentally retarded adults. They both found the employed group to be superior on personal and social factors of self-confidence,

cheerfulness, cooperation, respect of supervisor, punctuality, minding their own business, completing work on time, and showing initiative. Warren & Shafter (1957) disagree on the importance of safety. Warren found it to be insignificant while Shafter reported that it was one of twelve factors that distinguished unsuccessful and successful retarded employees. Truthfulness was also important in his male sample of subjects.

Jackson and Butler (1963) used the Bolduc Social Value-Need Scale and found that only one of six variables discriminated between successful and unsuccessful job placements. They found, "...individuals who express a tendency to resolve conflict situations by compliance and submission to adults and by maintaining a more assertive relationship to peers have a somewhat higher probability of succeeding in community placement." Peck & Stephens (1968) further concluded that "...a conforming manner in a retardate did not denote passivity, but usually represented a well-integrated person who had made an effort to attain this level of behavior." (p. 48).

Jackson (1968) in a study of the employment adjustment of ex-pupils in Scotland, is one of the few to find a positive relationship between measured intelligence, employment and social adjustment. The criteria of employment adjustment was (a) number of jobs held, and (b) amount of unemployment experienced. The assessment of adjustment was made after the completion of a standard three-year follow-up period. It was concluded that the higher the measure of I.Q. the more satisfactory the level of adjustment attained among the 188 subjects.

Much more typical are the findings that I.Q. does not differentiate the successful and unsuccessful in terms of adjustment. Appell, et al.,

(1962) compared employed vs. unemployed and found no difference on I.Q. scored on the full scale and verbal, but found the non-verbal Wechsler significantly in favor of the employed group. From this they formed a table of items they felt were and were not significant:

TABLE 1

Tabulation of Items: Work Evaluation Report

Items	Significant	Not Significant
I. General abilities	Following instructions--oral Learning speed Retention Attention to job Attention span Job comprehension Manual dexterity--gross	Following instructions--written Manual dexterity fine-finger fine-small tools coordination--both hands
II. Work approach	Interest level motivation Bizzare behavior amt. of attention seeking speed accuracy complexity of work responsibility initiative perseverance degree of supervision Adjustment to variety of work Adjustment to repetitive work	Attendance Punctuality Bizarre behavior judgment Care of tools, office equipment, maintenance
III. Social attitudes and adjustment	Grooming Self-confidence Cooperativeness Acceptance of supervision Group response acceptance of group acceptance by group communication	

Note.--Reprinted from an article by M. J. Appell, C. M. Williams, and K. N. Fishell published in the November 1962 *The Personnel and Guidance Quarterly* published by American Personnel and Guidance Association, p. 263.

These factors seem to be basically in agreement with that of Kolstoe & Shafter (1961) and Warren (1961) as cited earlier.

The goal achieving group, cited by Peck & Stephens (1968) was representative of the aims of most habilitation programs. They were found to possess these traits:

Positive job attitude.
Financial independence.
Positive personality traits.
Satisfaction with life.
Conformity in behavior.
Stability of temperament.
Positive attitude toward continued guidance.

The authors believed the last two traits to be the crucial variables accounting for the retardate's overall success vocationally and socially.

Rosen (1967) conducted a follow-up study on seventy-two retardates that had been rehabilitated and returned to independent living. The rehabilitation program had stressed the development of social and economic skills; vocational training and experience; a community half-way house program; community placements; and longitudinal follow-up assessment. Rosen concluded, "Post-rehabilitation adjustment has been most successful in areas where they have had previous training such as a job adjustment and social relationships and least successful in areas of new experience such as budgeting and financing."

Kolstoe & Shafter (1961) possibly give the best food for thought in their article, "Employability Prediction for Mentally Retarded Adults: A Methodological Note." They acknowledge the fact that studies result

in conflicting findings when job success and failure are examined. The authors suggest that it may be necessary to further refine the conditions of success and failure by questioning the basic assumption of homogeneity of success-failure populations. They propose that those characteristics which make for success in one job may make for failure in another. For example, almost every study has indicated I.Q. does not differentiate between success on vocational placements. However, Kolstoe & Shafter (1961) point out that possible the jobs held by the mentally retarded require such minimal intellectual ability that differences do not show up. To be able to predict or say that one is socially adjusted appears to be an impossible task. Success and failure are dependent on factors operating within and around the person and the environment and they are ever subject to change with the passage of time.

Implications

1. The retardate's self-concept plays a crucial role in his adjustment socially, emotionally, and vocationally.
2. Projective tests may well be the best device for interpreting the retardate's self-concept.
3. A retardate's negative self-concept is often related to negative parental attitudes.
4. Retardates have little knowledge of predictive power in hypothesizing what is considered success or failure in a given situation.
5. Retarded adults tend to have more contacts with the law and a higher percentage of serious offenses when they are compared with adults of the same socio-economic status.
6. No direct relationship exists between delinquency and subsequent job success or failure.
7. Adequate social adjustment is in no way automatically related to good vocational adjustment and vice versa.
8. Parental attitudes appear to influence the social and vocational adjustment of the retardate.

9. There is no reason to assume that the retardate can be sterotyped with respect to personality variables or that he will react differently in a given situation.

10. Many variables are related to personal success such as mental and physical health, mental maturity, self-concept, emotional stability, and interpersonal relations.

11. Level of intelligence cannot be directly related to vocational and social success or failure.

12. A positive attitude and a conforming manner appear to be two crucial variables related to personal success.

13. Conditions of success or failure are not due to a homogeneity of factors, rather, they are due to circumstances peculiar to a given retardate and his situation.

SCHOOL PERFORMANCE

School Behavior as Related to Vocational Success

The pessimism of counselors and parents regarding future success of ill-behaved educable retarded students may be unfounded. Two different studies have found no relation between good or poor school conduct and later work success. A 1928 study in Cleveland noted by Engel (1952) and a 1965 investigation by Roswell bore out this finding. In the Roswell study, which focused on educable mentally retarded young men who had attended an industrial training unit, delinquency was not predictive of failure.

Nor are I.Q. and job success correlated. This finding by Brainerd (1954) was reinforced by a 1959 study by Cowan & Goldman, and a 1968 study by Peck & stephens. Their data showed that neither I.Q. nor formal education were valid predictive devices for vocational success.

"The most important qualities to be instilled in a student if he is to be a success are social skills rather than academic knowledge," stated Porter & Milazzo (1958). Bloom, in a 1965 survey, found that certain of these skills developed hand-in-hand with increasing education. Those subjects who had attained the highest level of education had also developed the most responsibility, emotional stability, self-regard, and the best attitudes toward work. Also, most students failed because of instability rather than lack of ability.

Special Education versus the Traditional Curriculum

Can the stability be better encouraged in special classes or in traditional curricula? Longitudinal studies by Baller, et al.,(1967)

and Kennedy(1960) revealed no significant value in special education training. In direct contradiction three studies found vast employment differences between those who had attended special and regular classes.

Porter and Milazzo (1958) noted that of their seventeen subjects from special classes, 75 percent were employed full-time, 17 percent part-time, and 8 percent were unemployed and had never worked.

In a similar group studied by Cowan & Goldman (1959), twelve of twenty vocationally trained subjects were holding jobs, while only four of twenty untrained retardates were employed. Peck, et al., (1964) also agreed in the worth of special work training. Their concern was with four groups of young adult male retardates who had received special schooling, and another group not in the special classes. Among them, the researchers found that the trained youths attained a higher degree of success than those who entered employment without special work training.

To date, the Peck & Stephens (1968) research represents the largest sample of retardates examined in terms of differences due to regular vs. special classroom teaching. Twenty-five students were in the untrained (regular classes) group while one hundred pupils were in the trained (special classes) group. The authors' results are presented in table form:

TABLE 2

Background Data of Educable Retarded Exposed to Special Education vs. Educable Retarded that Remained in the Regular Classroom

Item	Untrained Group	Trained Group
Broken home	38%	61%
Retardation exogenous	36%	66%
Severe physical handicaps	8%	17%

TABLE 3

Employment Data of Educable Retarded Exposed to Special Education vs. Educable Retarded that Remained in the Regular Classroom

Item	Untrained Group	Trained Group
Employed at time of Interview	40%	82%
Average job tenure	5.56 months	10.34 months
Hourly wage	$1.01	$.78
Annual income	$1,337.00	$1,152.10

TABLE 4

Comparisons of Educable Retarded Exposed to Special Education vs. Educable Retarded that Remained in the Regular Classroom

No Difference	Untrained Group Superiority	Trained Group Superiority
Lack of anxiety and truthfulness as measured by Castaneda-McCandless Anxiety Scale (CMAS).	Written communication.	Cognitive functioning.
Level of character development as rated by the interview.	Intellectual and psychomotor functioning.	More persistent.
Occupational and communicative maturity as measured by Vineland Social Maturity Scale developed by Doll (1953).	Apply reasoning to practical situations.	Responsible.
Large portion of personality measures Bown's Self-Report Inventory.	Range of attention.	Job expectancy.
Enjoyment of life and contentment.	Mental health.	Advancement possibilities.
Social class.	Greater initiative.	Hours employed per week.
Verbal communication.	Adaptability.	Improved financial state.
	Social maturity.	Law conformity.
	Maintenance of friendships.	Credit rating.
	Leadership ability.	No aid from social agencies.
	Self job placement.	Self-directing.
	Number of dependents.	
	Sociocivic activities.	
	Driver's license.	

The authors concluded, "These findings seem to indicate, in effect, that the trained group less endowed physically and mentally, continued for significantly longer periods of time in jobs at which they worked a greater number of hours at less pay." (p. 37).

Research is contradictory when academic achievement is considered. Thurstone (1959) found the academic achievement of special class retarded students was significantly less than that of mentally retarded pupils who remained in regular classes. Ainsworth (1959) found no significant difference in academic progress of three groups of retardates--those placed in special classes, those in regular classes with an itinerant specialist, and those in regular classes with no itinerant specialist.

Socially, those who have the advantage of special classes show the best adjustment. Using the test results of the California Test of Personality, Kern and Pfaeffler(1962) compared the response of children in regular and special classes and in special schools. Those in special schools showed the best social adjustment and those in regular classes showed the poorest social adjustment. The greatest differences were found in school relations. The pupils in both the special school and the special class were superior to those in the regular classroom situations. These findings were also substantiated by Johnson (1950), Baldwin (1958), and Cassidy & Stanton (1959). Johnson (1961) found no differences on personality test scores but noted much lower peer acceptance of retardates in regular classes than in the special classroom.

A comparison was run between the post-school adjustment of one group of special students with off-campus work experience, and another group with experience limited to the school setting. Howe (1967) found no

significant differences between the two groups in terms of overall adjustment. In evaluating the two types of special training, he felt that for the majority of educable retardates on-campus work experience is adequate. Those with and without off-campus work showed similar achievement. This was seen as a welcomed outcome from the standpoint of efficiency. Because on-campus work is easier to control and supervise, available resources can be used most efficiently.

Dropouts Versus Special Education Graduates

In the same study, Howe looked at another group; those 18 percent of the subjects who dropped out of the work-study program. These people did not subsequently become unemployed. Instead, their overall adjustment ratings were actually better than the ratings of the group who graduated from the program. All the male dropouts found jobs, and their average weekly wage exceeded the average of the others.

Howe concluded, "Because the dropouts were more mature, independent and non-conforming individuals, they could adjust more readily to new situations and tasks." Those mentally retarded subjects who made it were more sure of themselves. For many others, the factor of dependency was a barricade, regardless of their type of schooling, or behavior while in school.

Implications

1. School conduct, good or poor, is not predictive of later work success or failure.
2. Academic achievement appears to be less in the special class than the regular class.
3. Social adjustment appears to be best for the educable retarded in the special classroom.
4. Peer acceptance is greater in special classrooms than regular classrooms.

5. Limited research shows no difference in post-school adjustment of students exposed to an on-campus versus an off-campus work experience.

6. Drop-outs from special education programs are generally found to be employed and actually better adjusted than special education graduates.

7. Special education students have a higher rate of employment than educable mentally retarded exposed only to regular classes.

EMPLOYMENT

Vocational success is of prime concern in this consideration of the total adjustment of the retarded individual. Although a steady job with an adequate income does not immediately denote a well-adjusted individual, employment is a necessary factor.

Employment Percentage

An article in *Clinical Pediatrics* (1967), tells us that approximately 3.3 million of the estimated 6 million retarded Americans are of working age. More than 85 percent of these have I.Q.'s between 50-70, which they consider sufficient for training at unskilled and semi-skilled jobs.

Although the statistics vary widely, it appears that about 80 percent of the mentally retarded are employed at any one time. Apparently most of those considered capable of employment are able to find some sort of work. Kidd, et al., (1957) in a 1961-66 follow-up of educable retardates with work training found 80 percent of his subjects were usually employed, and 50 percent had been at the same job for some time. Dinger (1961) recorded 80 percent of 300 former educable mentally retarded pupils as employed, and Howe (1967) noted 85 percent employment in a study made two to four years after the educable mental retardates had left school. Peck & Stephens (1968) reported 82 percent of their experimental group (educable mental retardates exposed to special classes) was employed at the time of the interview, vs, 40 percent employment of the control group (educable mental retardates exposed to regular classes).

Channing (1932), in a much earlier study, looked at 1,067 subjects in seven different cities. Ninety-four percent of them had been employed at some time. Extremely high employment percentages were also recorded by Porter & Milazzo (1958); eleven of their twelve subjects,

educated here in a work-study program, had some full-time (75 percent) or part-time (17 percent) income.

The lowest percentage was published in a thesis for the University of Iowa by Leroy Peterson (1958). Among sixty male and thirty female retardates, only slightly over 50 percent had jobs. A study done in Scotland by Eddy (1963), similarly recorded only 63.3 percent of a group of special education graduates as employed. He considered this a very high average, however, and listed only 7.3 percent of the subjects as unemployed. The rest apparently did not seek employment.

In order to place the employment percentages in a wider perspective, it is interesting to note the figures that take all workers into consideration. The Bureau of Labor Statistics (*World Almanac*, 1969), lists 1968 unemployment in the U.S. at approximately 3.9 percent of the labor force.

Vocational Adjustment

Another piece of research from Scotland attempted to assess employment percentages for the retarded. R. N. Jackson (1968) took into account both the number of jobs held and the amount of unemployment experienced in his evaluation. He was interested not in long-range success, but in present adjustment. For him, this ".....suggests a response to the dynamic processes involved in adaptation, a response which may vary both with time and changing conditions." Using these criteria, he considered 52.38 percent of the males adjusted, 16.19 percent borderline and 31 percent non-adjusted. Among the females, 58 percent were adjusted, 9.6 percent borderline and 32.5 percent non-adjusted.

A comparison of trained vs. untrained retardates revealed contrasting

differences in their vocational adjustment, as reported by Peck & Stephens, (1968). "The training programs appeared to establish superior, but not significantly so, work habits in a less endowed, more handicapped trained group, and they also appeared to create in these trained individuals a desire to work; a high performance level; and a willingness to work longer hours for less pay, to be more punctual, to be more regular in job attendance, and to have a more acceptable reason for job termination." (p. 37).

This study also reported that parents of the trained group were significantly more satisfied with their son's job. The profile analysis in this study showed the grave importance of parental attitudes in terms of the retardate's adjustment. Excerpts from these profiles follow:

Group Type	*Parental Attitude*
Goal Achieving	*Parent or parent figures provided long-term guidance.*
Erratic	*Failure qualities reported--little family stability.*
Contented	*Positive parental support and satisfaction.*
Failure	*No group was viewed more negatively by their parents or parent figures.*

Once again, the element of family support appears to be a crucial variable in terms of a retardate's success.

Job Stability

The job stability criterion Jackson (1968) used is a specific measurement, however, Jackson, himself, realized that the service jobs held by many (27 percent) of the retardates were those characterized by impermanence of tenure, limited prospects, and poor pay.

Those subjects who are experiencing upward mobility vocationally are also lumped into the category of those who change jobs often, and therefore are unstable.

Jackson's figures show that in the time involved in his three-year follow-up, the men had averaged 4.6 jobs each, and the women, 3.5 jobs. Yet the females suffered from more long-term unemployment. Of the 36-month duration of the study, 21.4 percent of the females were unemployed twelve months or more. Only 14.8 percent of the men were similarly without work.

In Eddy's study (1963), he wrote that one-third of the employed subjects had held only one job and 14.5 percent had changed jobs just once. Research done by Bobroff in 1956 produced the fact that, in the twelve years since his subjects had graduated from special classes, 65 percent of the 121 had held four jobs or fewer.

Focusing on the number of jobs held, rather than the number of jobs per person, Mary Carpenter (1921) also sought to measure stability. Between the 207 girls who had attended special classes, 84 jobs were held for six months or less, 25.5 jobs for two months or less, and 23.8 jobs less than one month.

Obtaining Employment

A great number of the retarded are very independent in seeking and securing employment. A 1932 study by Channing, already cited here, bears that out. She found that of the educable mentally retarded subjects, only 6 percent received aid from their schools in getting their first jobs. Thirty-one percent of the boys and 38 percent of the girls were aided by relatives, and over 50 percent were completely independent.

Even higher percentages of independence in obtaining work were

noted by Bobroff (1956). Over a twelve-year period, 72 percent of those in his sample found positions without reference to family, friends or agencies. Yet, for some reason, Harold (1955) indicated that only about one-sixth of his sample had absolutely no source of assistance. In a more limited breakdown, Keeler (1964) found that after a training program in San Francisco, only 13 percent were assisted in locating employment by the vocational rehabilitation service there. Forty-two percent of the trained group, but none of the untrained group, utilized the services of a counselor in obtaining employment is reported in the Stephens, et al. (1968) study.

Apparently, training in school is a great aid in finding jobs. Strickland and Averell (1967) noted that of 1,425 subjects, 80 percent held jobs for which they had been trained, less than one-half of 1 percent were in the same occupational category for which they received training, and 10 percent were not trained, but later received guidance and job placement. Only 10 percent were employed in an occupational field unrelated to the field for which they were trained.

Job Classifications

Again, in order to obtain a balanced picture of the retardate's situation, not just the fact of employment but the type of the position is important. One researcher felt that there was little limitation of opportunity for job training for the educable mentally retarded as far as the type of job was concerned (Strickland, 1964). Ninety-nine different jobs were held among 436 pupils. He listed small percentages working in agriculture, construction, medical service occupations, personal and domestic service, as service station attendants, sacking and stocking in grocery stores, and many (49 percent of the males) were

bus boys in hotels and restaurants.

Cohen (1956) described a training program that included work in housekeeping, food service, car maintenance, grounds keeping, laundry, and general maintenance. There was some training in the areas of plumbing, masonry, and electrical work. The type of employment secured by these trainees was generally classified as unskilled or semi-skilled.

A more limited occupational horizon was seen by Engel (1952). She thought the only jobs available for urban retardates were service jobs and simple factory work. For those in rural areas, there would be labor on the farms, in homes, and in performing simple service work. In 1932, Channing found that 60 percent of the former educable mentally retarded pupils in her study were in factory jobs. Many of the girls were in personal and domestic services.

Bobroff (1956) classified the jobs held by his subjects. Of the forty-three involved, thirteen were in unskilled labor, fourteen in semi-skilled, ten (24%) in skilled, one in a service occupation, one in clerical, two in managerial, and two unemployed. Keeler (1964) found 21.4 percent of the employed retardates she interviewed in unskilled, 11 percent in semi-skilled, 30.4 percent in clerical, and 9 percent in agricultural jobs. Peck & Stephens (1968) found little difference in terms of vocational placement when the trained and untrained groups were viewed. Sixty-two percent were classified as unskilled, 35 percent as semi-skilled, and 4 percent as skilled workers.

Again quoting figures from the Bureau of Labor Statistics, (*World Almanac*, 1969) it is interesting to look at the types of jobs held. Of the total labor market, 13 percent are listed as professional, 10.1 percent as managers, 13.1 percent as skilled workers, 18.7 percent as

operatives and kindred workers, 16.6 percent as clerical, 2.6 percent as agricultural, 10.2 percent as service occupations, and 2.4 percent as service workers in private households. These figures point out the disproportionate representation of retardates in service, semi-skilled and unskilled areas.

Income

Although no studies were found quoting the actual incidence of poverty among the retarded, figures from the Department of Commerce and the Council of Economic Advisors are revealing. There is a 12 percent incidence of poverty among all civilian workers. However, 74 percent of the domestic workers, 56 percent of the farm laborers, 45 percent of all farmers and farm managers, 23 percent of all laborers, and 22 percent of all service workers earn less than $3,000 annually. These figures are quoted by Chilsholm and Sussman (1963).

It is then easy to see why the employed retarded have trouble being totally self-supporting. A recent study by Baller, et al., (1967) did find 67 percent to be self-supporting, and another 16 percent needing some help to get along. An encouraging trend was discovered by them. Among the same group of people, only 27 percent were self-supporting in 1935, and 36 percent in 1950.

Shachoy (1954) found that of sixteen severely retarded subjects trained in an institution, twelve were self-supporting, two partially self-supporting, and two dependent on their parents.

Available income figures for the retarded are difficult to interpret, since minimum wage changes so often, and wage levels differ throughout the country. A 1961 study by Dinger indicated that among 300 former educable mentally retarded pupils, 60 percent had yearly incomes of less

than $3,600. Likewise, the 1968 Peck & Stephens study reported an average annual wage for all subjects to be approximately $1,400. More lucrative employment was secured by former pupils studied by Howe in 1967. They earned an average wage of $85 per week, or $4,420 a year.

This may indicate that wages for the retarded are improving. In light of the figures quoted earlier concerning income by occupation, however, one recognizes that many mentally retarded workers live in poverty.

Employment Problems

Not everyone who secures a job is able to keep it. The retarded certainly are no exception. They are subject to ill health, to the possibility of being laid off or even fired. Yet more of them are unemployed and are suffering greater job instability than the general population. They would appear to have some problems that most others do not experience.

Perhaps the clearest picture of reasons for vocational failure can be gained by citing some statistics gathered by various researchers. Windle, Stewart, & Brown (1961) studied the reasons why some patients, released from institutions, had failed to adjust vocationally. Since the reasons were grouped by the researchers, the categories are merely suggestive and not absolute.

Of the twenty-seven patients studied, their own actions accounted for 92 percent of the job failures. Inadequate work performance, displayed by an inability to take orders, anxiety, and poor self-evaluation, was blamed for 30 percent of the problems. Almost as much (26 percent) occurred as a result of inadequate interpersonal relations. Jealousy, disrespect for others, and quarrelsome and dominating behavior were

included in this category. Eighteen percent voluntarily returned to the institution. Antisocial behavior, including crimes, sexual misbehavior, pregnancy, and minor antisocial actions caused the failure of another 14 percent. Four percent had to leave their jobs because of ill health, 4 percent because of mental illness, and 4 percent had an environmental lack of support. The last category includes parental disinterest in their success, and parental or community objections to their employment.

The second half of the research by Windle, et al., (1961) contained the findings of Collman & Newlyn (1956) who have been interested in the factors of vocational failure among retarded adults. Collman & Newlyn studied thirty-five subnormal ex-pupils in England. They wrote that 51 percent failed due to character defects causing unreliability on the job, 26 percent were inefficient in their work, and 11 percent had temperamental instability. Bad conduct or personality problems accounted for the majority of all the failures.

The group studied by Craft (1958) (Peck & Stephens, 1968), suffered a high incidence of illness (17 percent), so the figures given were somewhat different. Thirty-seven percent were dismissed because of inadequate work and social relations. This category included a lack of work output and characteristics that made the subjects uncooperative, insolent and moody. Craft blamed 21 percent of the failure on sexual activity that was considered antisocial, and crimes. Another 8 percent left because of environmental lack of support.

The Windle, et al., (1961) study also includes findings by Brown & O'Connor (1952). They were interested in twenty-six females reinstitutionalized after a vocational leave. Their groupings labeled 46 percent

as failures because of physical disabilities, old age, or incompetence. Misconduct claimed 35 percent and 15 percent left because of unhappiness. The remaining 4 percent were forced to quit because of family interference.

A different kind of work can drastically change the reasons for failure. The sixty mentally retarded males that Brown & O'Connor (1952) (Windle, et al., 1961) studied were placed on a building project. Because of the physical demands involved, most quit for reasons of sickness or physical hardship. Disciplinary dismissals due to instability were also prevalent.

Leaving the study by Windle, et al., (1961) one finds another very informative publication written by Julius S. Cohen (1956). He, too, analyzed the vocational failures of mental retardates who had been institutionalized. His fifty-seven subjects were young (age 18-20) and job placement came through their school.

Cohen found that 33 percent experienced some difficulty in the community rather than the job itself. The skill and strength demands were no problem for the majority. The problems they did experience were varied. Pilfering, sexual problems, and altering a check were mentioned. Seventeen subjects returned to the institution for reasons over which they had no control. Parental objections to the job placement, substandard living conditions, and a lack of money to pay for medical expenses forced termination for some. Poor attitudes with regard to the job were also a major reason for return. A lack of readiness for employment by the students and subsequent difficulty in adjustment was demonstrated by immature, lazy, and vulgar behavior.

Research on eighty mentally retarded adults with job adjustment

problems was carried out by Pickman in 1951. He drew up a rank order of commonality of occurrence of problems. Most prevalent was a lack of acceptance by fellow workers. Their joking and ridicule was, understandably, a real problem. Tied in with this ridicule was the second most common reason for failure, the lack of social and vocational sophistication on the part of the retardate. Their naivete was manifested through a disregard for punctuality, improper dress, and transportation difficulties. Salary dissatisfaction caused many to quit. With the funds they did have, an inability to budget properly caused problems for many. Lack of initiative and job responsibility was ranked next, followed by those quitting their jobs for capricious reasons, with apparently no conception of what it meant to be unemployed.

A good number quit their work due to status anxiety on the part of their parents. The parents could not tolerate members of their families working at menial tasks. The subjects, too, often expressed feelings that they were capable of better jobs than they held. A few of the people were illiterate, and subsequently suffered job adjustment problems. At the end of his ranking, Pickham (1951) listed family over-protection as a detriment to only a small number of the subjects.

Other researchers who have shown concern with job problems are Kolstoe & Shafter (1961). In an earlier section of their paper, their 1961 study was reviewed, which stressed the importance of certain personal and social characteristics. They stressed that the greatest success is experienced by those who are cheerful, cooperative, show respect for their supervisors, punctual, able to mind their own business, and show initiative. They also considered the quality and care of the work that was done to be important. Those clients who came from families that emphathized with them, and

those who enjoyed good health also were more successful vocationally.

Again, in regard to the families of the retarded, Cowan & Goldman (1959) are quoted as saying that vocational success is greater among those mentally retarded adults who have had a considerable degree of freedom to make decisions concerning their activities and conduct. Their study also indicated that the amount of effort a subject was willing to expend was a factor in vocational success.

The recurrent theme of the importance of the individual's personal traits and characteristics was emphasized by Coakley (1945) and Peck & Stephens (1968). They found that success was more easily attainable for those displaying traits of dependability, ability to get along with other workers, accept criticism, and interest in the job to try to do their best.

Those who failed were also criticized for their bad working habits linked with social skills. If they talked too much, were not punctual, and could not follow directions, they seemed to have problems. As indicated by Peck & Stephens (1968), failures were the most negative in regard to themselves, their jobs, their employers, and their parents. In turn, they were viewed most negatively by these people.

Neuhaus (1967) reached the same conclusions. After a three-year training program, it was found that the most important aspect of the worker's ability to succeed was related to social skills. Paramount skills were those necessary for successful adjustment with co-workers and supervisory personnel.

Similarly, Engel, in 1952, emphasized social abilities. She felt that work readiness, strength, and stamina were important to employability. Yet, social attitudes and personal adjustment were first

necessary if job success was to be complete.

It is very difficult to assess whether or not such factors as age, aptitude, and education have a significant effect. Kolstoe & Shafter (1961) recognized the conflicting findings in the literature concerning these variables. Channing (1932) was willing to contribute a vast array of factors to the success or failure of the retardate. The list included age, aptitude, physical stamina, emotional maturity, personality, and type of job. Channing thought that the retardate should not be placed in decision-making positions nor hold any real responsibility.

In contrast, Abel (1940-41) thought a stable home was of prime importance. He also emphasized ambition and self-respect, interest, ability, training, patient guidance, and luck.

The focus of some researchers was on the employers' opinions. Those interviewed by Peterson (1959) complained about lack of effort, poor punctuality, inability to get along with fellow workers, and failure to adjust to working conditions. Almost the same reasons for failure were found by Angelo in a 1952 study. Poor punctuality, failure to adjust to working conditions, and a lack of continued effort on the part of the worker had interfered with success.

Another group of employers agreed that ability to stick to the job at hand, dependability, honesty, and skill at getting along with fellow workers were necessary (Porter & Milazzo, 1958). They again emphasized the point that the social skills are much more important than any specific job training available.

Prediction of Vocational Success or Failure

With the foreknowledge that a certain number of those placed on jobs will subsequently fail, many attempts have been made to develop predictive

vocational tests. The reliability of the tests is not certain. Some researchers place great faith in them, others find no lasting validity in the tests.

An extensive, four-year project on the question was carried out by Parnicky & Kahn (1969). Their aims were to develop quantified evaluative measures, and then measure subsequent adjustment. Their sample included 437 mildly retarded students. An attempt was made to predict their vocational performance through psychological tests, prevocational counselor and work sample evaluations, and job supervisor ratings.

High degrees of intercorrelation were found within the group of psychological tests, yet, the study states, more independence of items was found within the series of work sample measures. The researchers also report high intercorrelations on the rating scale items, possibly suggestive of a halo effect. They found some predictive strength of subsequent adjustment and performance in all of their evaluation techniques.

Results indicated that the job supervisor rating best predicted performance for students in half-day vocational training. In the eleven psychological tests they used, the motor skills tests showed the highest reliability. They reported that psychological test correlation with educational performance varied as did their group counseling results.

Another study supported the previous confidence in the predictive value of the employer's rating scale. This scale included such personal and social factors as cheerfulness, cooperation, respect of supervisor, punctuality, and personal initiative. Warren (1961) wrote that not a single client who received a doubtful or no rating was able to obtain

employment.

Focusing on specific tests, Elkin (1968) and Fry (1956) recommended different measures. Elkin found that performance among those employed as domestics was, to a significant degree, related to skill on the O'Conner Finger Dexterity Test. According to Elkin, those who made better workers had tested higher on intelligence tests, had more adequate psychomotor skills, and superior performance on work samples.

Fry felt that she could also use test scores to predict work success. Her subjects were thirty-eight institutionalized girls who worked in a laundry. The best predictive measure of work success was found to be the Performance Efficiency Quotient derived from Wesheler-Bellevue Intelligence Scale Form I.

More generally, Keeler (1964) wrote that the ability to interpret and follow verbal directions rather than academic knowledge was a key indicator of job success.

Shafter (1967) was very concerned with the individual's behavioral and personality characteristics. He drew up a number of factors that discriminated between the successful and unsuccessful worker. These factors were derived from data on both men and women. He found them to predict the likelihood of unsuccessful placement for those who:

had behavior problems
had escaped from the institutions
were quarrelsome with the other employees
were quarrelsome with the patients
fight with the patients
lacked ambition
were not obedient
were careless
had punishment records
stole
rated poorly on evaluation of their work.

It is interesting to note that when the males only were considered as a group, just five factors differentiated between success and lack of same. Problems were predicted for those who:

were quarrelsome with patients
fought with patients
were not truthful
were careless
were not obedient

Shafter did note that all the factors listed were subjective and subject to change.

The Cowan & Goldman (1959) study brought out the belief that the factors of effort and training were indicative of vocational success. However, I.Q., work history, and formal education were not valid predictive devises.

Peck & Stephens (1968) found that extending the length of habilitation, because of a retardate's job failure, did not subsequently insure later vocational success. The subjects in the erratic group experienced the longest habilitation period whereas the failure group spent the shortest time in a training program. Subjects that succeeded were found to be more content and happier with their lives in general. The authors concluded that a habilitation program could be of little help to the retardate with negative self-attitudes and poor parental support.

On the other side of the argument are those who contend that no trustworthy predictive devices are available. Curry (1969), in an unpublished doctoral dissertation for The University of Iowa, took that stand. He said that, using criteria deemed important by employers, neither staff members nor work-study students could accurately predict how the students would do when they started working.

Kolstoe & Shafter (1961) also played down the value of these tests. Their feeling was that time could be better spent describing jobs that were already being successfully performed according to intellectual, personal, social, and vocational skill requirements. They did not totally rule out the idea of some sort of predictive measures. Rather, they suggested the improvement of the indexes used.

In a book edited by DiMichael (1966), an article by Goldstein (1964) was published which expressed his opinion that employment prediction is close to impossible. He said that the heterogeneity of the educable mentally retarded group plus the large number of personality factors and social situations involved complicated the task. Predictive variables that could be proven as significant in carefully designed research investigations lost their value when an attempt was made to apply them elsewhere or at other times.

Kennedy (1962), too, emphasized the danger in relying on predictive tests. Her twelve-year longitudinal study was also published in DiMichael's book, *New Vocational Pathways for the Mentally Retarded*. Relations between predictors and criteria should never be applied mechanically to individual cases according to Kennedy. Because there always exists more aspects of the person than research can adequately measure, absolutes simply do not hold.

Post-Vocational Adjustment

According to Conley (1965), even after training, job placement, and perhaps rehabilitation, the retardate is not ensured of a secure future. To his inability to cope with the world, the strain of constant unsureness about his job may be added. Because of employer prejudice against the handicapped, fear by employers of accident proneness, lack of mobility, and employee prejudice, many must live in constant threat of unemployment.

Jackson (1966) defined other important factors which might threaten employment stability. Ofentimes immediate job placement might seem satisfactory, but increasing age of the client causes problems. The removal of the supportive home environment or the effects of marriage and family commitments might be too much for which the retardate to cope. Age restrictions in employment which excludes the individual once he becomes an older adult is problematic, too. Increasing age may be accompanied by increasing mental handicap which could hinder employment. Decreasing follow-up supervision makes the situation even more difficult for the retardate.

John Vriend showed a real concern for the plight of the retarded. In a study published in 1967, he traced two case histories of mentally retarded adults showing problems that occurred after job placement. Because the retardate has a very low-level ability in language usage and poor reading and math skills, he is vulnerable to economic exploitation. Vriend writes that the retardate is often short-changed, over-charged and sold unwanted goods. For much of his living, he is dependent on the good will of others. His constant struggle to cope is never fully resolved. The individual never stops increasing his wants. His need for guidance and assistance does not end when he finds a job. Rather, the need continues as he develops.

The untrained group in the Peck & Stephens (1968) study were found to abuse credit more often than subjects in the trained group. The untrained group were also more subject to law violations. This would seem to speak well for special education classes and rehabilitation training. As favored by these authors and the majority of special education administrators, guidance and training is crucially needed

throughout the retardate's life to insure continued vocational and social adjustment.

Implications

1. Approximately 80 percent of the 3.3 million retardates of working age are currently employed.
2. Parental attitudes are significantly related to the retardate's adjustment vocationally.
3. Employment stability is difficult to measure as jobs held by retardates are characterized by impermanence, limited mobility, and poor pay.
4. The majority of retardates obtain employment independently.
5. Approximately two-thirds of the working age retardates are employed in unskilled job areas, while the remaining one-third are working in semi-skilled vocations.
6. The great majority of retarded live in poverty due to their limited incomes.
7. Inadequate social attitudes and personal adjustments accounts for the preponderance of vocational failures among adult retardates.
8. Family support plays a crucial role in the retardate's attitude toward himself and his job.
9. Controversy reigns high when the best measures for predicting vocational success or failure are discussed by current research educators.
10. Due to the ever-changing environmental conditions surrounding the adult retardate, continued guidance and counseling is needed to insure present and future adjustment.

CIVIC AND COMMUNITY ADJUSTMENT

Community Participation

The social integration of the mentally handicapped adult includes not only his working day, but the entirety of his life. Speyer, in a 1964 article, urged that the emphasis on the economic rehabilitation of the retardate be considered only a step in the final goal of social habilitation. Home living, work, and leisure-time environments must all be regarded in evaluating adjustment.

It would appear that civic and community participation among the mentally handicapped is not extensive. The church seems to be the most common institution in which the retarded participate. Porter & Milazzo (1958) reported that among seventeen former pupils in special education classes, 58 percent regularly attended church, and 42 percent attended occasionally. Another group of mentally retarded who had been in regular classes indicated less church participation. Seventeen percent had regular attendance, and 83 percent irregular attendance.

Peterson & Smith (1960) found that about 50 percent of the retardates in their group belonged to a church. Their control, a group with normal intelligence, indicated comparable membership but better attendance. Furthermore, almost four times as many subjects of the comparison group were members of group organizations. Neither group was active in voting at election time.

Baller, et al. (1967) found that 60 percent of their subjects in the low group (I.Q. less than 70) did not belong to any community club or similar organization. No organizational membership was held by 50 percent of the middle group (I.Q. 70-80) or 25 percent of the high group (average I.Q.).

Peck & Stephens (1968) reported only 16 of the 125 subjects in their study had membership in any type of organization--labor, sport, social, fraternal, or civic. They noted that in most instances "... successful use of leisure reflected parent or counselor guidance." (P. 51).

Emanuelsson (1967) did a twenty-six year follow-up of 327 mentally retarded children in Sweden. One-third of his subjects reported community participation in the form of membership in study circles. Bobroff (1956) found some community participation among both the Special B and Special Preparatory groups. However, those students who had been in regular academic classes (Special Preparatory) had more varied interests, social activities, and a better voting record.

Peterson (1959) interviewed ninety former special education students and found them, as a group, to be unfamiliar with community agencies. Very few actively used recreational facilities, either.

The civic characteristics of the mentally retarded also paint a rather negative picture. Not only is their voting record poor, but they show a much higher incidence of criminal behavior. A previous section of this paper dealt more extensively with that question. One does remember that the Peterson & Smith (1960) investigation showed twice as many crimes had been committed by the retarded group than the failure group.

Another part of the community adjustment which may cause difficulty concerns their housing. Again referring to the Peterson and Smith investigation, 85 percent of the retarded group were living in residential areas considered below average. In fact, 93 percent of their houses were judged substandard. There were ten times more homeowners among the comparison group, and more retardates were living in apartments or

with relatives.

Porter & Milazzo (1958) found that some of those from the special education classes had residential mobility. Three moved to better housing, and two to different housing of the same quality. However, among those from the regular classes, four moved into poorer housing, and three into the same quality of housing.

This research has made the point even more obvious that any one aspect of the retardate's adjustment gives but a glance into the kind of life he lives.

Implications

1. Church is the most prevalent civic activity for the adult retardate.
2. Membership in civic organizations range from minimal to non-existent.
3. Limited research indicates that the retarded live in sub-standard housing.
4. Living with relatives is the primary means of housing for the educable mentally retarded.

67

SPECIAL EDUCATION IN IOWA

SPECIAL EDUCATION IN IOWA

A Summary of the Secondary Classes for the Educable Mentally Retarded Classes in Iowa

The recent interest and attention directed toward the educable mentally retarded is clearly reflected in the growth of pupils, classrooms, and qualified personnel across the State of Iowa. Statistics concerning secondary programs for the educable mentally retarded including students from 15 to 21 years, were previously compiled by the State Department of Public Instruction with the following results:

TABLE 5

Growth in the Number of Educable Mentally Retarded Pupils from 15 to 21 Years of Age Enrolled in Secondary Programs

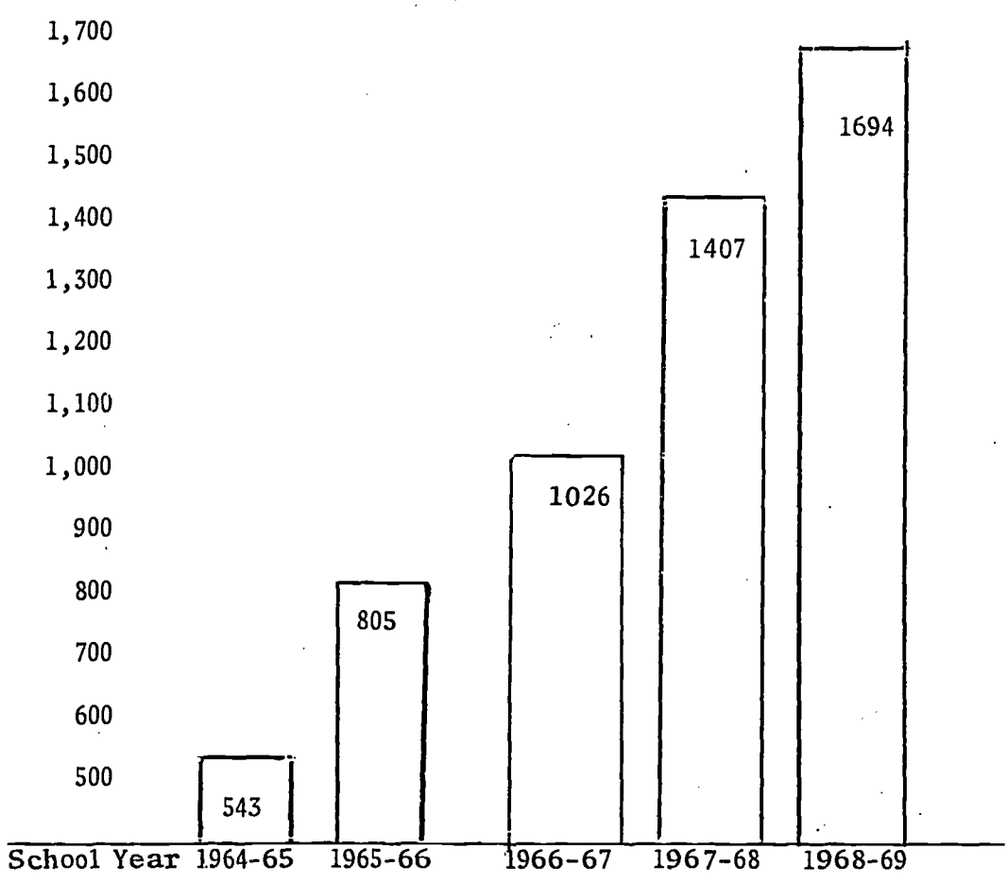
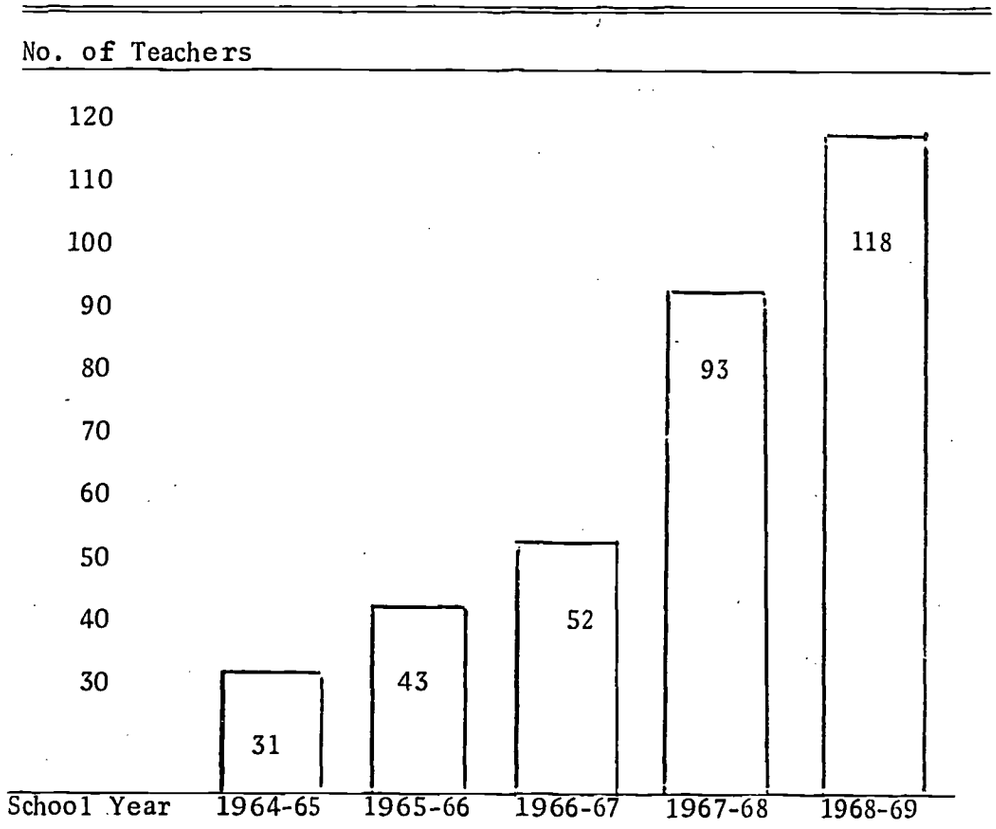


TABLE 6

Increase in the Employment of Special Education Teachers for Secondary Classes for the Educable Mentally Retarded



The number of pupils in secondary programs for the educable mentally retarded, as well as the number of teachers, has more than tripled in the last five years. New classrooms and additional work-study programs account for the sizeable increases from 1966 to 1967 and 1968 to 1969.

Presently the 1968-69 secondary teaching force will be examined more closely. Forty-five of 118 secondary teachers are men. A male instructor is especially valuable at the secondary level as the majority of educable retarded students are boys and, they may come from broken homes in which a father image is absent. Fifty-six teachers are completely qualified to teach special education, that is, they have "Endorsement 35."

Fifty-five teachers have "Temporary Approval" to teach mentally retarded children and are in the process of fulfilling course requirements for Endorsement 35. The remaining seven teachers are instructing educable students under the "Grandfather Clause"--that is, they were teaching retarded children during the 1959-60 school year which preceded the current requirements for teaching mentally retarded students and have permanent approval.

College Programs in Iowa

The Growth of Qualified Teachers

The following tables show the growth of training programs for teachers of the mentally retarded at two of Iowa's universities:

TABLE 7

University of Iowa Undergraduates that are Certified to Teach Educable Mentally Retarded Students

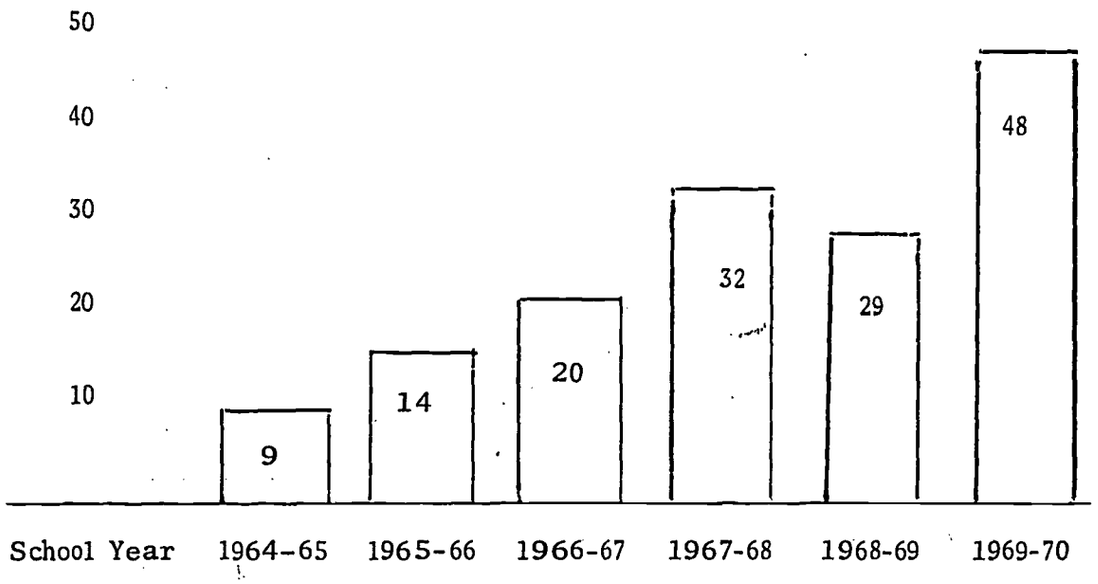
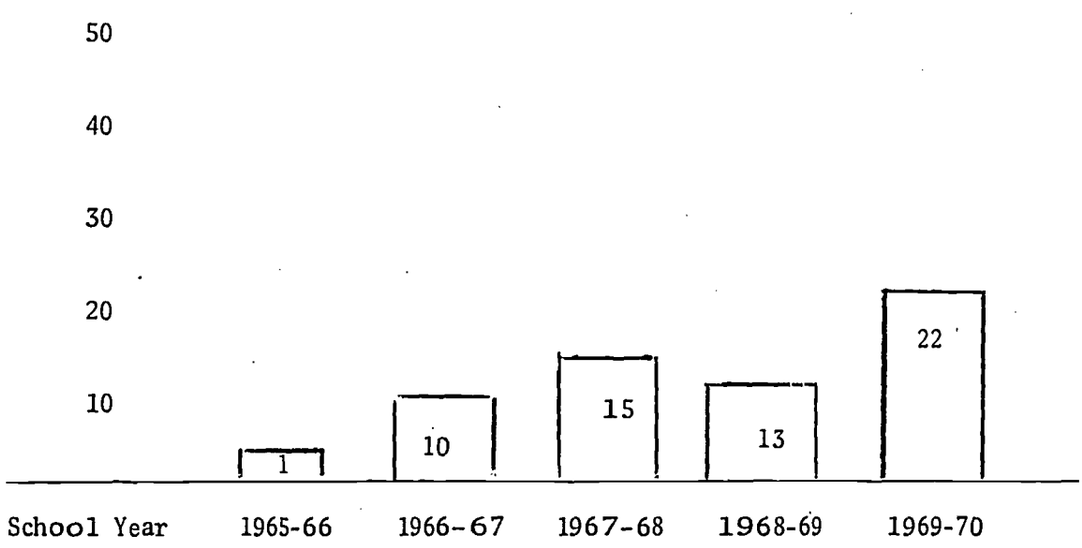


TABLE 8

University of Northern Iowa Undergraduates that are Certified to Teach Educable Mentally Retarded Students



Philosophies of Secondary Curriculum Instructors

It is appropriate at this time to preface the following interviews with a few qualifying statements. The three instructors involved in teaching secondary curriculum for the retarded were informally interviewed about their course content, overall approach and philosophy of special education. As each educator indicated, their personal views and approaches are ever-changing.

Paul Retish, Ed.D. - University of Iowa: Dr. Retish received his Bachelor's Degree from the University of New York. The University of Indiana awarded him his Master's and Doctorate Degrees. He is currently at The University of Iowa teaching special education courses in Secondary Curriculum and Vocational Resources for the Retarded.

Assistant Professor Retish does not teach about the three R's in his secondary curriculum course. Rather, he teaches a life-space concept. That is, he feels desks and textbooks should be among the last things teachers order for their high school students. "Set up a living room and let the kids learn how to communicate," states Dr. Retish. He agrees with what Ernest Horn, a noted educator, said forty years ago, "Social studies should be the core or center of every curriculum as it is life."

In this vein, Dr. Retish attempts to guide his future teachers into examining the problems the adolescent retardate faces now and what difficulties he will face as an adult. He discussed the backgrounds and environments of these students. As he stated, "We're talking about the disadvantaged when we are speaking of the educable mentally retarded and we, as teachers, do not really understand how they live and feel." During the course he discusses ways of changing one's style of teaching to better understand and meet the needs of the students.

Dr. Retish believes that teachers of the educable mentally retarded do not necessarily need training in primary or secondary education. He would prefer an emphasis in:

Sociology

Psychology

Counseling

This reflects the importance of being able to "talk" to these pupils.

Professor Retish commented on changes he would personally like to see in educating the retarded. During the high school years, he feels the majority of special education teachers are teaching the three R's and therefore failing to meet the student's needs. He feels the higher

functioning educable mentally retardates drop out of school for this very reason. Dr. Retish would like to see the abolishment of "X" number of hours required for graduation. He would also like to see the higher functioning educable retarded returned to the regular classroom to achieve to the best of his ability.

Dr. Retish basically disagrees with the work-study program as it is presently being used. He agrees with Dr. Howe (1967) when he states, "We tend to place the high functioning retardate in a work-study program and they don't need it as these pupils will succeed anyway." He comments that the low functioning educable mentally retarded, especially those with other handicaps, are least likely to succeed. They are the ones who would benefit most from the work-study experience.

Dr. Retish would like to see the low functioning educable mentally retardates follow a classical work-study program in the segregated classroom. That is, begin with job training on the school campus. In it the student is paid a given amount and receives instruction in industrial arts, physical education, sex education, and practical living. During the senior high, a work-study program should be implemented in which the student attends classes one-half day and works the other half. His final year should be complete employment in the community.

Paul Vance, Ed.D., - Drake University: Until this fall, Paul Vance, Associate Professor of Education, has been the only full-time faculty member in special education at Drake University. Dr. Vance received his Bachelor's Degree from Iowa State University and his Master's and Doctorate Degrees from Colorado State College. At Drake his teaching has

included courses in exceptional children, mental retardation, curriculum in mental retardation, and psychology of pupil adjustment. In these courses, he gives an overview of the many areas of special education. In addition, Dr. Vance emphasizes the peculiarities of special education in Iowa. During the mental retardation course, the students observe special education classes in Des Moines and visit Woodward State Hospital School for the Mentally Retarded.

The curriculum and methods course stresses the unit approach in the classroom. An emphasis is also placed on parent problems and counseling, an area gravely neglected in teacher training, according to Dr. Vance.

During the five years that special education training has been offered at Drake, Dr. Vance estimates that between fifty-five and sixty-five full-time students have graduated fulfilling Endorsement 35 requirements. Because many special education students attend Drake on a part-time basis, it is impossible to estimate the total number of teachers that have fulfilled special education requirements.

Examining special education as it is today, Professor Vance believes too much emphasis has been placed on some facets of the field while others have been sorely neglected. He is of the opinion that the federal government has over-extended itself in its financial obligation to special education. "Each state and community should be shouldering more of the financial responsibility," comments Dr. Vance. Also, possibly too much time is used in diagnosing and labeling the retardate while too little time is spent developing the curriculum. The end

result is basically a watered-down program that often fails to meet the needs of too many special education students.

To date, he believes we have best met the needs of the severely retarded. In the educable retarded range, he thinks our curriculum is best at the elementary and intermediate levels and poorest at the junior high and high school levels. Professor Vance recommends a pre-school program for the educable mentally retarded; a program in addition to the Head Start Project. This curriculum content would also emphasize personal and social adjustment.

Dr. Vance favors the continuance of special classrooms. Some type of tract or grouping appears to be needed in our schools, but educators must make certain that each tract is really offering different curriculum content and is, in reality, meeting the individual needs of the students. In this vein he is quite hesitant to endorse the current trend of resource teachers in the area of mental retardation. First of all, education must do a better job training all teachers before being able to train such a specialist. He also poses the question, "Just how would we train a resource teacher for the retarded? A resource person would often function simply as a tutor or as a remedial reading teacher," remarks Dr. Vance.

Failure to approach and inform administrators and regular classroom teachers is another concern. He feels that special education teachers and pupils continue to be isolated and rejected during the school day, and recommends more in-service training and informative meetings to lessen this problem.

Furthermore, Dr. Vance expressed the need for more distinction between training teachers for trainable and educable mentally retarded children. Current teacher training programs give little direction to suitable practices and techniques for trainable children.

Lee Courtnage, Ed.D., University of Northern Iowa: Dr. Courtnage received his Bachelor's degree from Wayne State College, Nebraska, and his Master's and Doctorate degrees from Colorado State College.

At the University of Northern Iowa, Associate Professor Courtnage explains that an undergraduate student may have a special education emphasises in mental retardation, the emotionally disturbed, or the gifted. Only a minor in the area of mental retardation is offered at the secondary undergraduate level. A major in all three areas is available at the Master's level.

Dr. Courtnage teaches a course entitled "Community Resources in Special Education." It stresses the resources available at the federal, state, and local levels. An attempt is made to provide knowledge of these services in order to avoid duplication. An emphasis is also placed on how to work with these agencies in order to obtain the greatest benefits from them.

"Administration in Special Education" is another course Professor Courtnage teaches which offers guidelines to administrators for planning various special education programs. Selecting qualified personnel, providing instructional materials, interpreting the program to the community, and informing administrators about legal provisions for special education are additional areas discussed in this course.

Professor Courtnage feels there are several teacher-training needs in the field of special education. He expresses the opinion that

colleges should devise a system for selecting and screening potential teachers. More specifics in teaching should also be taught at the undergraduate level. Dr. Courtnage discussed the need for a more clinical, individual and prescriptive approach when the exceptional student is considered. "More field experience and greater cooperation between the community and public schools also need the attention of administrators and teachers," according to Professor Courtnage.

Needed changes at the secondary or college level include:

1. More specific work-study programs.
2. More overall information made available to all teachers and administrators concerning special education.
3. More recruiting of special education people at the college level.
4. More social and academic emphasis as it applies to vocational adjustments.

On this fourth point, Dr. Courtnage discusses the need for specific academic training as it is related to given job requirements. That is, teachers should examine job opportunities closely and from this, teach specific course content. A close look at personal and daily living needs should also be considered.

Dr. Courtnage sees the role of a resource teacher as a qualified person made available for all children with learning problems including the mentally retarded. He believes this resource person should be but a part of the entire special education program. To do an effective job in this capacity, he believes additional clinical training is needed. In this way, the resource person could more easily determine strong and weak points in the student and work with him accordingly. An emphasis on cooperation between this specialist, school psychologists, and therapists is also warranted.

"Opening up the work-study program by disregarding I.Q. limitations is another needed change," stated Professor Courtnage. He believes this would add dignity to the program and help erase the stigma that it is a program for just "dummies". To widen the scope would more easily tie these students into technical and vocational schools. In this way, the schools could allow for a four to six year program in which vocational adjustment could be offered. This program would be made available when those in the community, both the retarded and non-retarded, needed it.

VOCATIONAL REHABILITATION

VOCATIONAL REHABILITATION - 1968

Client Characteristics

The vocational rehabilitation center in Des Moines has compiled data concerning selected characteristics of the mild, moderate, and severely retarded clients rehabilitated for the fiscal year ending June 30, 1968. Noted similarities between the mild and moderate groups are:

1. Predominance of single white males.
2. Live either with friends or relatives.
3. Have completed special education.
4. Were referred by the school for rehabilitation services.
5. Participated in rehabilitation an average of one to three months.
6. Received no public assistance in obtaining a job.
7. Worked in competitive employment upon completion of rehabilitation.
8. Employed in a service or unskilled occupation.

When comparing weekly earnings, however, a difference between these two groups is seen. The mildly retarded group had higher average wages than did the moderately retarded group. One hundred forty-eight out of 242 mildly retarded clients had a weekly average of $60 to $99; whereas, all but 7 out of 154 moderately retarded clients earned under $79 per week.

The severely retarded group included 13 single white clients, 11 of whom are males. At the end of rehabilitation, 11 were employed--6 of them in a competitive situation. Nine of the 13 earned from $1 to $39 per week. This is a great deviation from the earnings of the mild and moderate groups.

MENTALLY RETARDED--CLIENTS OF THE DIVISION OF REHABILITATION EDUCATION AND SERVICES--1968

Mild Mental Retardation

Selected characteristics of the 242 clients rehabilitated during fiscal year ending on June 30, 1968, whose major disabling condition was mild mental retardation:

1. AGE AT REFERRAL:

Less than 20	161
20 thru 34	66
35 thru 44	7
45 thru 64	8
65 +	0
Total	242

2. DEPENDENT STATUS:

No dependents	226
1 dependent	4
2 or 3 dependents	7
4 dependents or more	4
Not reported	1
Total	242

3. RACE:

White	223
Negro	17
Indian	1
Other	1
Not reported	0
Total	242

4. SCHOOL GRADE COMPLETED:

None	2
1-7 grades	24
8 grades	27
9-11 grades	56
12 grades	12
13-15 grades	0
16 + grades	0
Special Education	121
Total	242

5. MARITAL STATUS:

Married	16
Widowed	1
Divorced	3
Separated	1
Never married	221
Not reported	0
Total	242

6. SEX:

Male	154
Female	88
Total	242

7. MONTHS FROM LAST JOB TO ACCEPTANCE AS CLIENT:

24 months or less	5
25 to 48 months	6
49 to 72 months	4
73 months or more	0
Duration unknown	1
Not previously rehabilitated	9
Total	25*

8. PRIMARY SOURCE OF SUPPORT:

Current earnings	23
Family and friends	184
P.A. with federal funds	5
P.A. without federal funds	3
Public institution	17
Workman's Compensation	2
Other	8
Total	242

*No information available on the other 217 clients.

9. REFERRAL SOURCE

Educational institutions	129
Hospitals	15
Other health agency	4
Social Security Administration	2
Welfare agencies	28
State Employment Service	13
Individual, other	28
Self referred	9
Other	13
Correctional institutions	1
Not reported	0
Total	242

10. WEEKLY EARNINGS:

	Acceptance	Closure
None	0	0
$ 1 to 19	212	14
$20 to 39	5	12
$40 to 59	7	35
$60 to 79	10	85
$80 to 99	6	63
$100 and over	2	18
Not reported	0	15
Total	242	242

11. WORK STATUS:

	Acceptance	Closure
Competitive work experience	24	218
Sheltered workshop experience	3	8
Self-employed	0	0
Homemaker	1	10
Unpaid family worker	1	6
Not working - student	106	0
Not working - other	107	0
Total	242	242

12. CASE SERVICE COSTS:

Total number	Number with cost	Total cost	Average cost
242	223	$76,073	$314.35

13. COST OF SERVICES BY TYPE AND SOURCE:

Type of Service	State Rehabilitation Center		Sheltered Workshop		Other Sources		Total	
	With Cost	*Cost*	*With Cost*	*Cost*	*With Cost*	*Cost*	*With Cost*	*Cost*
A. During referral:								
Diagnostic	17	$ 4,164	1	$ 90	208	$ 5,264	209	$ 9,518
B. During rehabilitation process:								
Diagnostic process	10	5,303	0	0	47	1,807	50	7,110
Physical restoration	0	0	0	0	11	1,603	11	1,603
Training and materials	39	14,983	14	5,961	30	8,852	66	29,786
Maintenance and transportation	21	6,675	8	1,848	51	19,490	62	28,013
Training allowance	0	0	0	0	0	0	0	0
Other services	0	0	0	0	1	43	1	43
	70	$26,961	22	$7,809	140	$31,795	190	$66,555

14. OCCUPATIONS AT CLOSURE:

A. Non-Industrial:

TOTAL - Professional, Technical, Management - 2

Architecture Engineer	1	Education	0	Art	1
Math, physical science	0	Library science	0	Entertainment	0
Life science	0	Law	0	Management and office	0
Social science	0	Religion	0	Administrative	0
Medicine, health	0	Writing	0	Misc. professional, etc.	0

TOTAL - Clerical and Sales - 11

Stenographer, typist	4	Material, recording	3	Salesman	0
Information distribution	0	Misc. clerical	0	Salesman, service	1
		Merchandising	4		

TOTAL - Service - 116

Domestic service	14	Barber and cosmetics	1	Apparel, furnish	13
Food service	46	Amusement and recreation	0	Protective service	3
Lodging service	4	Misc. personnel service	15	Building	20

TOTAL - Farming and Fishing - 13

Plant farming	8	Misc. farming	4	Hunting and trapping	0
Animal farming	1	Fishery	0	Agriculture service	0
Forestry	0				

B. Industrial Occupations:

Occupation	Skilled	Semi-skilled	Unskilled	Total
Processing	0	1	15	16
Machine trades	0	3	6	9
Bench work	2	0	8	10
Structural	2	0	9	11
Miscellaneous	0	2	29	31
Total	4	6	67	77

14. OCCUPATIONS AT CLOSURE: (continued)

C. Special Occupations:

TOTAL - Special Occupations - 22

Homemakers	10	Unpaid family work	6	Vendor street clerk	0
Sheltered workshop operator	6	Vendor	0		

MENTALLY RETARDED--CLIENTS OF THE DIVISION OF REHABILITATION EDUCATION AND SERVICES--1968

Moderate Mental Retardation

Selected characteristics of the 154 clients rehabilitated during fiscal year ending on June 30, 1968, whose major disabling condition was moderate mental retardation:

1. AGE AT REFERRAL:

Less than 20	93
20 thru 34	54
35 thru 44	4
45 thru 64	3
65 +	0
Total	154

2. DEPENDENT STATUS:

No dependents	144
1 dependent	3
2 or 3 dependents	5
4 dependents or more	2
Not reported	0
Total	154

3. RACE:

White	146
Negro	8
Indian	0
Not reported	0
Total	154

4. SCHOOL GRADE COMPLETED:

None	1
1-7 grades	18
8 grades	12
9-11 grades	36
12 grades	4
13-15 grades	0
16 + grades	0
Special Education	83
Total	154

5. MARITAL STATUS

Married	5
Widowed	1
Divorced	1
Separated	4
Never married	143
Not reported	0
Total	154

6. SEX:

Male	87
Female	67
Total	154

7. MONTHS FROM LAST JOB TO ACCEPTANCE AS CLIENT:

24 months or less	1
25 to 48 months	4
49 to 72 months	0
73 months or more	0
Duration unknown	0
Not previously rehabilitated	2
Total	7*

8. PRIMARY SOURCE OF SUPPORT:

Current earnings	5
Family and friends	121
P.A. with federal funds	5
P.A. without federal funds	1
Public Institution	19
Workmans Compensation	0
Other	3
Total	154

*No information available on the other 147 clients.

9. REFERRAL SOURCE

Educational Institutions	91
Hospitals	17
Other health agency	7
Social Security Administration	3
Welfare agencies	11
State Employment Service	5
Individual, other	13
Self referred	2
Other	3
Correctional institutions	1
Not reported	1
Total	154

10. WEEKLY EARNINGS:

	Acceptance	Closure
None	148	22
$ 1 to 19	2	18
$20 to 39	2	34
$40 to 59	0	47
$60 to 79	1	26
$80 to 99	0	5
$100 and over	1	2
Not reported	0	0
Total	154	154

11. WORK STATUS:

	Acceptance	Closure
Competitive work experience	5	114
Sheltered workshop work experience	0	16
Self-employed	0	2
Homemaker	2	5
Unpaid family worker	3	16
Not working - student	64	0
Not working - other	80	1
Total	154	154

12. CASE SERVICE COSTS:

Total Number	Number with Cost	Total Cost	Average Cost
154	143	$56,738	$368.43

13. COST OF SERVICES BY TYPE AND SOURCE:

Type of Service	State Rehabilitation Center		Sheltered Workshop		Other Sources		Total	
	With Cost	*Cost*	*With Cost*	*Cost*	*With Cost*	*Cost*	*With Cost*	*Cost.*
A. During referral:								
Diagnostic	15	$ 5,343	0	$ 0	128	$ 2,877	130	$8,220
B. During rehabilitation process:								
Diagnostic process	9	3,849	0	0	26	1,105	27	4,954
Physical restoration	0	0	0	0	4	445	4	445
Training and Materials	27	12,872	24	9,718	8	3,914	55	26,504
Maintenance and Transportation	18	3,159	12	2,987	32	10,431	46	16,577
Training allowance	0	0	0	0	0	0	0	0
Other services	0	0	0	0	1	38	1	38
Total	54	$19,880	36	$12,705	71	$15,933	133	$48,518

14. OCCUPATIONS AT CLOSURE:

A. Non-Industrial:

TOTAL - Professional, Technical, Management - 1

Architecture engineer	0	Education	0	Art	1
Math, physical science	0	Library science	0	Entertainment	0
Life science	0	Law	0	Management and office	0
Social science	0	Religion	0	Administrative	0
Medicine, health	0	Writing	0	Misc. professional, etc.	0

14. OCCUPATIONS AT CLOSURE: (A. continued)

TOTAL - Clerical and Sales - 6

Stenographer, typist	1	Material, recording	1	Salesman	0
Information distribution	1	Misc. clerical	0	Salesman, service	1
		Merchandising	2		

TOTAL - Service - 60

Domestic service	11	Barber and cosmetics	0	Apparel, furnish	9
Food service	21	Amusement and recreation	0	Protective service	0
Lodging service	6	Misc. personnel service	6	Building	7

TOTAL - Farming and Fishing - 14

Plant farming	9	Misc. farming	2	Hunting and trapping	0
Animal farming	3	Fishery	0	Agriculture Service	0
Forestry	0				

B. Industrial Occupations:

Occupation	Skilled	Semi-skilled	Unskilled	Total
Processing	0	1	5	6
Machine trades	0	0	0	0
Bench work	0	0	6	6
Structural	2	0	7	9
Miscellaneous	0	0	15	15
Total	2	1	33	36

C. Special Occupations:

TOTAL - Special Occupations - 37

Homemakers	6	Unpaid family work	16	Vendor Street Clerk	0
Sheltered workshop operator	15	Vendor	0		

MENTALLY RETARDED--CLIENTS OF THE DIVISION OF REHABILITATION EDUCATION AND SERVICES--1968

Severe Mental Retardation

Selected characteristics of the 13 clients rehabilitated during fiscal year ending on June 30, 1968, whose major disabling condition was severe mental retardation.

1. AGE AT REFERRAL:

Less than 20	8
20 thru 34	4
35 thru 44	1
45 thru 64	0
65 +	0
Total	13

2. DEPENDENT STATUS:

No dependents	13
1 dependent	0
2 or 3 dependents	0
4 dependents or more	0
Not reported	0
Total	13

3. RACE:

White	13
Negro	0
Indian	0
Not reported	0
Total	13

4. SCHOOL GRADE COMPLETED:

None	0
1-7 grades	0
8 grades	2
9-11 grades	0
12 grades	0
13-15 grades	0
16 + grades	0
Special education	11
Total	13

5. MARITAL STATUS:

Married	0
Widowed	0
Divorced	0
Separated	0
Never married	13
Not reported	0
Total	13

6. SEX:

Male	11
Female	2
Total	13

7. MONTHS FROM LAST JOB TO ACCEPTANCE AS CLIENT:

24 months or less	0
25 to 48 months	0
49 to 72 months	
73 months or more	0
	0
Duration unknown	0
Not previously rehabilitated	0
Total	0 *

8. PRIMARY SOURCE OF SUPPORT:

Current earnings	0
Family and friends	11
P.A. with federal funds	0
P.A. without federal funds	0
Public institution	2
Workmans compensation	0
Other	0
Total	13

*No information available.

9. REFERRAL SOURCE:

Educational institutions	4
Hospitals	1
Other health agency	2
Social security administration	0
Welfare agencies	3
State employment service	1
Individual, other	2
Self referred	0
Other	0
Correctional institutions	0
Not reported	0
Total	13

10. WEEKLY EARNINGS:

	Acceptance	Closure
None	13	2
$ 1 to $19	0	6
$20 to $39	0	3
$40 to $59	0	1
$60 to $79	0	1
$80 to $99	0	0
$100 and over	0	0
Not reported	0	0
Total	13	13

11. WORK STATUS:

Competitive work experience	0	6
Sheltered workshop work experience	0	5
Self-employed	0	0
Homemaker	0	0
Unpaid family worker	0	2
Not working - student	2	0
Not working - other	11	0
Total	13	13

12. CASE SERVICE COSTS:

Total number	Number with cost	Total cost	Average cost
13	10	$4,956	$381.23

13. COST OF SERVICES BY TYPE AND SOURCE:

Type of Service	State Rehabilitation Center		Sheltered Workshop		Other Sources		Total	
	With Cost	*Cost*	*With Cost*	*Cost*	*With Cost*	*Cost*	*With Cost*	*Cost*
A. During referral:								
Diagnostic	2	$1431	0	$ 0	10	$218	10	$1855
B. During rehabilitation process:								
Diagnostic process	0	0	0	0	1	20	1	20
Physical restoration	0	0	0	0	0	0	0	0
Training and materials	3	2361	1	720	0	0	4	3081
Maintenance and transportation	0	0	0	0	0	0	0	0
Training allowance	0	0	0	0	0	0	0	0
Other services	0	0	0	0	0	0	0	0
Total	3	$2361	1	$720	1	$ 20	5	$3101

14. OCCUPATIONS AT CLOSURE:

A. Non-Industrial:

TOTAL - Professional, Technical, Management - 0

Architecture engineer	0	Education	0	Art	0
Math, physical science	0	Library science	0	Entertainment	0
Life Science	0	Law	0	Management and office	0
Social Science	0	Religion	0	Administrative	0
Medicine, health	0	Writing	0	Misc. professional, etc.	0

Non-Industrial, (Cont.)

TOTAL - Clerical and Sales - 0

Stenographer, typist	0	Material, recording	0	Salesman	0
Information distribution	0	Misc. clerical	0	Salesman, service	0

TOTAL - Service - 4

Domestic service	2	Barber and cosmetics	0	Apparel, furnish	0
Food service	1	Amusement and recreation	0	Protective service	0
Lodging service	1	Misc. personnel service	0	Building	0

TOTAL - Farming and Fishing - 0

Plant farming	0	Misc. farming	0	Hunting and trapping	0
Animal farming	0	Fishery	0	Agriculture service	0
Forestry	0				

B. Industrial Occupations:

	Skilled	Semi-skilled	Unskilled	Total
Processing	0	0	0	0
Machine trades	0	0	0	0
Bench work	0	0	0	0
Structural	0	0	1	1
Miscellaneous	0	0	1	1
Total	0	0	2	2

C. Special Occupations:

TOTAL - Special Occupations - 7

Homemakers	5	Unpaid family work	0	Vendor Street Clerk	0
Sheltered workshop operator	2	Vendor	0		

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97

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